ERIC Document Resume | See Instruction Sheet | DATE OF RESUME 5/27/65 | DATE RECEIVED

A. PUBLICATION DATA

1. ERIC NUMBER ED000226
2. ORIGINATOR CONTROL NO(S). 8065
3. IDENTIFICATION NO. OE-51003

DO NOT WRITE IN SPACE BELOW

MICROFILM COPY AVAILABLE YES ☒ NO ☐

COPYRIGHT GRANTED YES ☐ NO ☒

COPYRIGHT RELEASE FILED YES ☐ NO ☐

TYPE OF REPORT
PROPOSAL ☐
IN-PROGRESS ☐
FINAL ☒
FOLLOW-UP ☐

OTHER ERIC REFERENCES:

ERIC SATELLITE CODE

4. AUTHOR(S): Rork, John B. and Robbins, Leslie F.
5. TITLE OF DOCUMENT ABSTRACTED: Casebook on Campus Planning and Institutional Development
6. PUBLICATION TITLE: N.A.
7. EDITOR(S): N.A.
8. PLACE OF ORIGIN
ORG. Office of Edu. U.S. Dept. of HEW
ST. Washington, D.C.
CITY, STATE
TELE. EXT.
INST/LOC CODE
9. PUBLISHER OR SOURCE: U.S. Govt. Printing Office

10. VOL.	11. PAGES	12. MO./YR.	13. TOTAL PP.
N.A.	N.A.	62	162

B. INDEXING DATA

14. SUBJECT AREA
15. TYPE OF ENDEAVOR: Case study

16. INDEXING TERMS (6-12)

case study	higher educa.	junior college		
planning	bldgs. and equip.	administration		
development	colleges	Office of Educa.		

17. ABSTRACT (MAX. 250 WORDS)

In designing the casebook, 10 typical campus planning situations representing as wide a variety of problems as possible were singled out. Institutions were then selected for each situation which would exemplify a comprehensive approach toward solving the problems posed. Institutional selections included:

1. A rapidly growing university with plenty of growing space.
2. A growing urban institution with very limited space.
3. An entirely new public 4-year university.
4. A new private 4-year college.
5. The move of a State college to a new campus.
6. The move of a private college to a new campus.
7. Cooperation between an urban university and the city in an urban renewal project.
8. A new public junior college.
9. The consolidation of three private colleges into one new college.
10. A college making effective use of facilities not planned for higher education.

Each case was written by the president of the institution selected or by someone he designated. The casebook therefore is representative of a variety of planning situations, many different personal points of view, and a broad range of experience. The concluding chapter is a paraphrase of a brochure written by a university architect for the governing board of his institution. It sets forth the logical order of procedural steps in the planning of new construction and the interrelationships and functions of the officers and agencies involved in the planning process.

The publication includes photographs and charts.

NOT AVAILABLE FROM ERIC: CONTACT PUBLISHER

ERIC No.
18. SOURCE OF ABSTRACT: Reporter No. 6

C. FUNDING DATA

19. SUPPORTING ORGANIZATION: HEW
20. DIVISION OR DEPT.: Office of Education
21. CONTRACT NO.
PROJECT NO.
22. TOTAL COST OF PROJECT
23. DURATION OR PROJECT

U.S. Department of Health, Education, and Welfare
Office of Education

ERIC Form 1

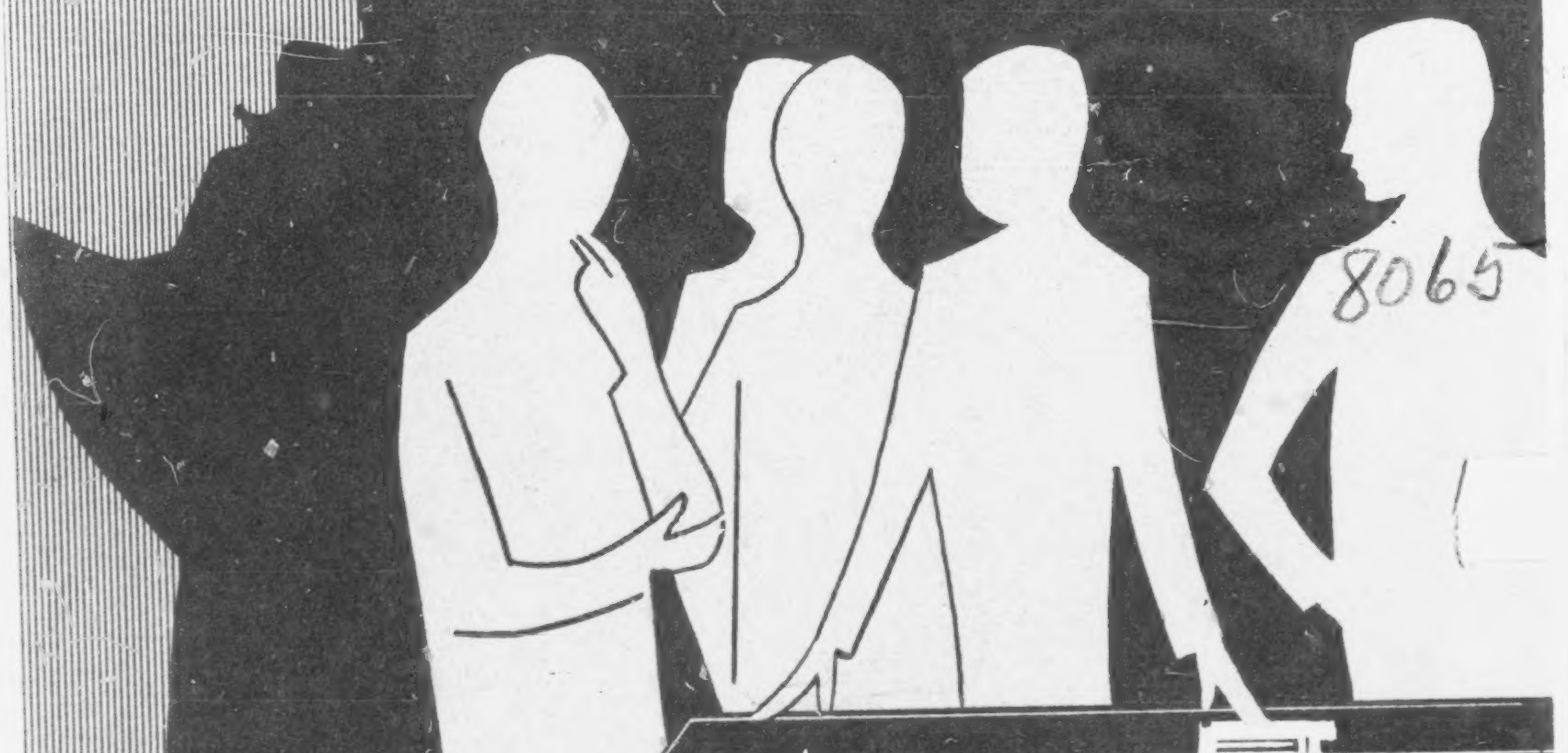
R-6-8

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office of Education

This document has been reproduced exactly as received from the person or organization originating it. Points of view or opinions stated do not necessarily represent official Office of Education position or policy.

Casebook on campus planning and institutional development

OE-51003



8065

ED000226

Withdrawn

U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE • Office of Education

OE-51003

Casebook on campus planning and institutional development

TEN INSTITUTIONS

how they did it

Compiled by
JOHN B. RORK, *Specialist*
Campus Planning
Division of Higher Education

LESLIE F. ROBBINS, *Specialist*
Business Administration
Division of Higher Education

Circular No. 667

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
Abraham Ribicoff, Secretary

Office of Education
Sterling M. McMurrin, Commissioner

U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON : 1962

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington 25, D.C. - Price $1.25

Foreword

IT HAS BEEN ESTIMATED that our institutions of higher education in their physical plant development for the 1960's will need, at a minimum, $18.9 billion. They are now investing approximately $1 billion a year for these purposes and hope to double it by 1970. Economy and educational effectiveness in the investment of these huge sums require comprehensive campus planning as well as specific planning of individual buildings.

The physical characteristics of higher education institutions are in a constant state of change. Particularly during periods of growth and change colleges and universities have unique and difficult problems to solve. In some cases the problem may be a shortage of land for expansion which can be secured only through an urban renewal program. In others it may be the challenge of founding an institution at a new location in completely new buildings. In still others, it may be the necessity of converting buildings originally constructed for other purposes or of rehabilitating college buildings that have become health and fire hazards as well as inefficient for educational uses.

This casebook has been developed on the assumption that many college officials will be stimulated to do more effective planning by studying the steps taken by others who faced comparable problems. The number of cases has been limited to 10 so that each may give a comprehensive and factual account of the steps taken and the obstacles faced in planning. The authors of the several reports can supply additional details, and the compilers of the casebook will respond to requests for information on other aspects of campus planning.

While each institution may consider its many problems to be unique, it appears that many of the growing pains and their treatments follow stages that, in retrospect at least, seem to have many similarities to the problems and solutions of other institutions. A review of these similarities and solutions should help to guide others in finding the best solutions to their campus development problems.

The College and University Administration Branch of the Division of Higher Education has been responsible for compiling and interpreting the "cases" presented. Under the direction of W. Robert Bokelman, Chief, Business Administration Section, his staff identified the "cases" and invited the presidents of the institutions to prepare the reports. We received excellent cooperation from the presidents or other key persons who were the authors. All higher education administrative persons who are confronted with problem situations described in one or more of the reports will appreciate, as we do, the concise and communicable descriptions presented.

Authors were encouraged to share their experiences freely in a manner that might be most helpful to others facing similar problems. Such a soul-baring cannot always escape implications of criticism either of self or of others. The views expressed are those of the authors and do not necessarily represent the views of the U.S. Office of Education.

Ernest V. Hollis, *Director*
College and University
Administration Branch

R. Orin Cornett,
Acting Assistant Commissioner for
Higher Education.

Contents

CHAPTER | Page

I. A Perspective of Campus Facilities Planning. 1

II. The Cases. 10

III. Expanding Brigham Young University. *By Sam F. Brewster* 17

IV. Expanding Saint Louis University. *By M. B. Martin, S. J.* and *B. T. Schuerman, S. J.* 35

V. Planning The University of South Florida. *By John S. Allen* 48

VI. Planning and Building Methodist College. *By L. S. Weaver* 63

VII. Moving San Francisco State College to a New Site. *By Glenn S. Dumke, John S. Butler*, and *Arthur J. Hall* . . 72

VIII. Moving Howard College to a New Site. *By Harwell G. Davis* 93

IX. Expanding The University of Chicago. *By Julian Levi* . . 107

X. Planning and Building South Plains College. *By Orlin Brewer* and *Robert Burks* 128

XI. Planning and Building St. Andrews Presbyterian College. *By Ansley C. Moore*. 138

XII. Establishing Barrington College in Part in Facilities Not Planned for a Higher Education Institution. *By Howard W. Ferrin* 147

XIII. Organizational Procedures. *By James M. Hunter* 156

Figures

1. Flow Chart 4
2. Organization Chart, University of South Florida 59
3. Typical 4-Year Program, St. Andrews Presbyterian College . . 141
4. What Happens in a Building Project and How 157

Illustrations

Page

Comprehensive Location and Development Plan of Brigham Young University 21
Aerial View of Saint Louis University, North Campus 41
Campus of University of South Florida 54
Classroom Building of Methodist College 66
Aerial View of San Francisco State College Campus 83
Howard College 98
University of Chicago Campus and Redevelopment District with Lake Michigan in the Background 120
South Plains College 134
Mockup of Campus of St. Andrews Presbyterian College 143
The Campus of Barrington College 151

Chapter I

A Perspective of Campus Facilities Planning

IT WAS ABOUT 1956 when many groups and agencies interested in planning facilities for higher education attempted to project enrollments ahead to 1970 and discovered a probable enrollment increase of approximately 100 percent. This in general meant either twice as many colleges and universities or twice as many buildings or at least some combination of new facilities providing a doubling of the student stations. In some institutions there was latitude for growth in existing facilities because the institution was not full to capacity. In others, certain facilities by functional type would need to have priority of attention, such as dormitories or a library or a heating plant. In some situations a whole new campus was envisioned either by way of creating a new institution or by moving a college to a new location because the limits of the old campus precluded the necessary expansion. In any case, a staggering amount of planning of new facilities was implied.

Now, a few years later, those who have been through the experience of expanding an existing campus or of planning and building a new campus are the trailblazers; others can profit by their experience. It is the purpose of this casebook to make some of that experience available. The writers of the respective reports in this casebook and their colleagues have met and have mastered many of the difficulties which will appear again in some form on other campuses. Their generosity in spending the time and making the effort to write about what they did is a witness to their desire to help others who are planning for new or expanded campus facilities.

In the matter of advance planning for new physical facilities for a college or university, there may be either the evil of deficiency or the evil of excess. Most of the evils that are evident in the planning aspect are those of deficiency. The typical college campus has grown spasmodically, and in many instances a newly built facility was outgrown before it was completed. The progression of styles through successive stages from the old campus to the bright new campus is an architectural record of the institution's stages of growth. To some extent the resultant architectural hodgepodge was unavoidable. At any rate, the colleges of the Nation could not wait for the ultimate in building design before getting on with their planning.

Implications of Master Planning

It is considered feasible to construct the average college building so as to function to a fair degree of satisfaction for about 50 years. This span, then, may be said to designate the average college's planning horizon: To obtain the maximum 50-year return for each construction dollar spent.

Fifty years ago one institution was comprised of a dozen peculiar little buildings and what must have seemed then to be a large expanse of prairie. Three of the buildings are still in use, though not for the same purposes, and all three have had extensive remodeling. Fifty years ago it was a small college. About 20 years later it had grown into a small university. The onset of this stage was anticipated by not more than 5 years' preparation. The facilities needed for its professional schools were quite different from those needed when it was a college, even a fairly large college. About 10 years ago, it seemed to awaken suddenly to the realization that it was a sizable university with two large campuses, a student body of 12,000, and no longer able to plod along on year-to-year plans for new buildings. It began to pick up contiguous parcels of property. Its lately announced forward look contemplated facilities for 17,000 students on the main campus by 1970. The announcement had the sound of smug complacency, and yet that date is only 8 years hence. It is to be hoped either that the long-range horizon of the campus development committee is beyond that date or that its plans are mixed with a generous measure of built-in flexibility.

Flexibility

The evils of excess in planning which was suggested in an earlier paragraph refers to such matters as (1) planning in too much detail too far in advance; (2) making advance commitments with insufficient or unreliable projection data; and (3) being too rigid and inflexible as to subsequent changes in the original plan. It is obvious that the further the planning looks ahead, the more tentative should be the decisions reached.

Usually the first planning statistic to be projected is enrollment. Enrollment projections of less than a 10-year forward look are probably not adequate as a sound projection on which to base a realistic master construction plan. Beyond a 10-year span, however, the plan should have increasing degrees of flexibility. National projections made in 1956, giving weight to the probable population growth, the numbers of college-age youth expected in each year up to 1970, the increasing percentages of those youth asking admission, and the increasing numbers working for advanced degrees, forecast in the aggregate a doubling of the student body by 1970. The growth was not expected to be evenly distributed over the 15-year period but to parallel roughly the birth rate bulge of the post-war forties. Naturally, the growth pattern of any one institution which will engage the planning effort of one campus development committee may vary considerably from the aggregate, especially if that institution has established a growth pattern such as an enrollment ceiling.

The next planning factor might normally consist of a projection of the distribution of total enrollments for each of the successive years into categories which have significance as to prorating and scheduling facilities by type: (1) instructional, classroom; (2) laboratory; (3) library; (4) residential; (5) general, such as heating plant; (6) athletic; (7) college union; and (8) other categories by function. The planning in each such category will consider what is currently in being; how many more students, if any, each will accommodate; what its physical condition is; and to what uses it might be converted. A general pattern of future needs in terms of a time schedule will soon begin to emerge.

A space utilization study, if not already made, should be on the agenda. Specialists in this field tell us that the average American college is profligate with the use of its instructional facilities. Classrooms and laboratories can be used to a far greater proportion of the time by using some less desirable hours of the day and week, and can be used more intensively by more careful matching of class sizes with classroom sizes. Waste space, such as an attic, can often be converted to certain uses at a fraction of the cost of that much square footage in the form of a new building. Utilization ceilings in residential facilities are more firm than in instructional facilities.

Educational specifications growing out of a definitive study of the objectives of the institution must underlie all facilities planning. Improvisation and make-do have too often marked the changes and growth of a college or university. No doubt the conventional classroom and the basic teaching laboratory for the physical sciences will continue to be needed, but educational methods do change with the times and may require new types of facilities.

Selecting a Campus Development Planning Committee

There is sometimes the tendency to criticize the use of a campus development planning committee because of the experiences of a few institutions. It is true that under some circumstances a college would have progressed further and faster if the services of one competent planning authority had been retained and his advice followed, rather than bothering with a representative committee on which those who were the least competent were the most vocal, causing able members to give up in disgust. Despite this danger, it is nevertheless possible to have intelligent participation under qualified leadership.

To have the most able committee members possible is a prime requisite. To obtain a planning committee which will exert effective leadership itself requires some high grade planning. What groups are usually represented on the planning committee? One representation level, of course, is departmental, especially when planning for the laboratory sciences. Another category which must be represented is that with reference to physical forms: architecture, engineering, space utilization, plant development, and landscaping. Management and control must be represented: the president, the board of control, the business manager, the physical plant manager, and the director of admissions. Last but not least is the student body; this usually involves someone from the office of director of student personnel services and a representative from the students themselves.

Rarely should the representative members be elected. They should be appointed, and each one only after full consideration and extensive consultation. Personal characteristics which enhance a person's value on such a planning team include: (1) ability to look ahead, (2) rational balance between aspirations and practical realities, (3) ability to work and plan with others, and (4) experience with actual operations in at least one educational discipline (or in college administration).

The services of a professional planner should be retained. This person may be the institution's architect, either the head of an architectural firm or a member of the institution's department of architectural engineering. The professional assistance should include the services of a landscape architect. Landscaping usually does not need to imply a completely artificial eradication of all of the natural features of the site. In many situations there are interesting glades, pools, groves, and rocky hillsides which if preserved will tend to bring the institution into harmony with its neighborhood. The natural areas can also contribute to education in the natural sciences.

Committee Procedure

The campus development planning committee plays a dual role: (1) it screens, crystalizes, and integrates the dreams, hopes, and expectations of the campus community for its college-of-the-future; and (2) it communicates the decisions, as finally achieved, to the members of its respective groups. The committee does not have executive authority. Its function is to serve as a staff adviser to the administration and the board of control. Ultimate responsibility must rest with the board, even though its decisions may appear to be largely confirmatory.

A schematic flow chart such as is seen in figure 1 might be helpful in grasping one possible conception of the way the planning of a proposed new facility proceeds through various stages to completion. It also suggests the relation of each committee and each official to the various steps as they occur.

It is conceivable that the type of organizational procedure for campus planning which works well in one situation may not be so satisfactory in another context. It is altogether likely that a publicly controlled institution will be required to observe certain procedural stipulations not incumbent upon a private institution. A State planning commission is often placed in charge of the State construction program. This State commission will attempt to maintain a rational balance in the expenditure of State funds as among the several State institutions. It will also be likely to insist upon certain standards of quality and space allocation and to require that prescribed contract forms be used. A broad basis of competition is likely to result from the public interest aspect of competitive bidding.

It follows then that private institutions are likely to be more flexible in the latitude they may use in the expenditure of the building funds at their disposal. Sometimes direct negotiation with a contractor can be substituted for open competitive bidding. There is more freedom for the private institution to combine all contracts under a general contractor who assumes the responsibility for the subcontractors' work. This might be important to a small college whose staff of technicians does not include anyone competent to schedule and integrate the work of the various technical building trades employed on the project.

On Looking Ahead

In almost every campus situation a critical balance between instructional and residential facilities affects enrollment potential. Residential facilities have firm ceilings as to capacity but use of instructional facilities can usually be extensively expanded by more intensive scheduling.

FLOW CHART

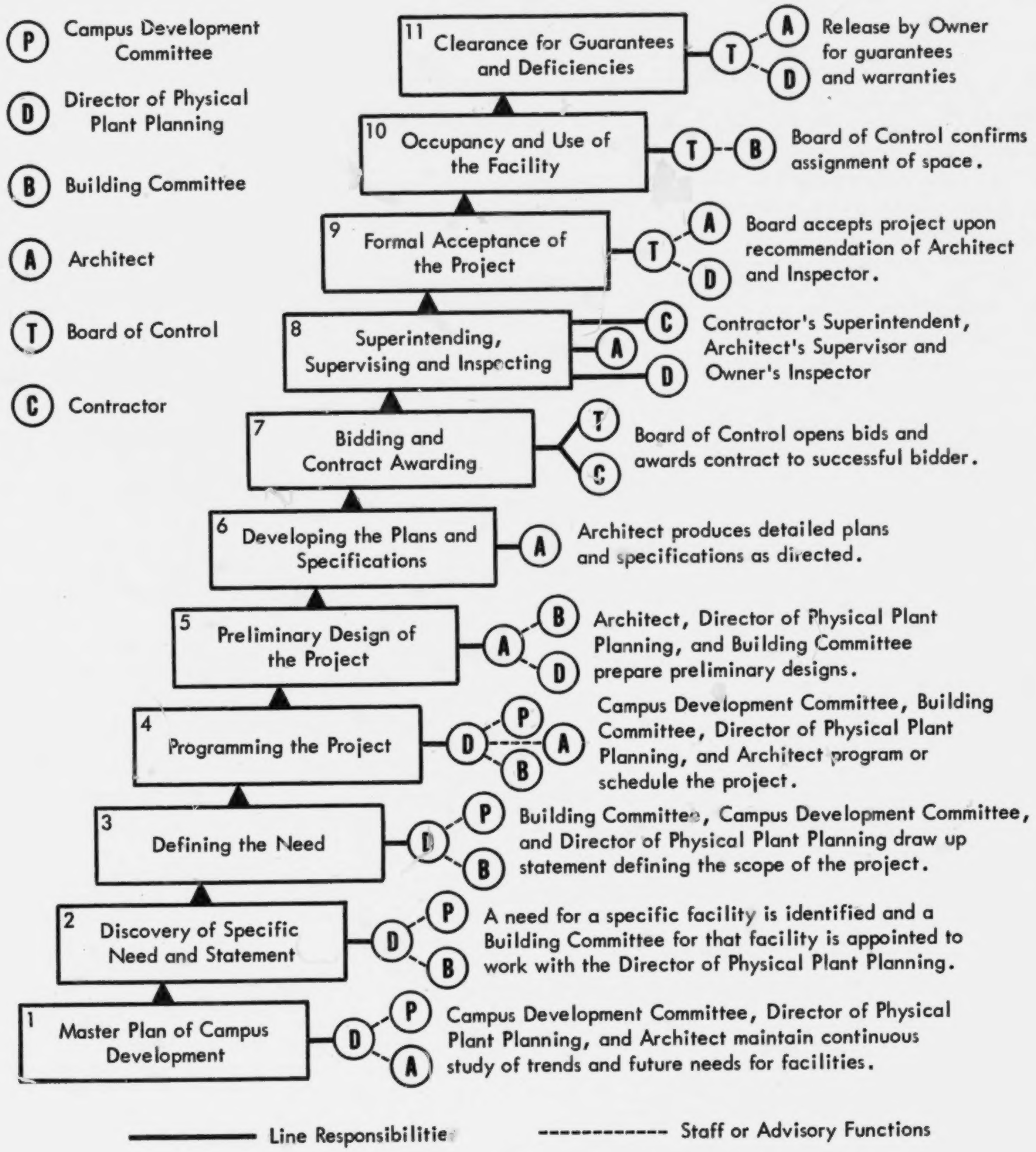

P Campus Development Committee
D Director of Physical Plant Planning
B Building Committee
A Architect
T Board of Control
C Contractor
11 Clearance for Guarantees and Deficiencies
Release by Owner for guarantees and warranties
10 Occupancy and Use of the Facility
Board of Control confirms assignment of space.
9 Formal Acceptance of the Project
Board accepts project upon recommendation of Architect and Inspector.
8 Superintending, Supervising and Inspecting
Contractor's Superintendent, Architect's Supervisor and Owner's Inspector
7 Bidding and Contract Awarding
Board of Control opens bids and awards contract to successful bidder.
6 Developing the Plans and Specifications
Architect produces detailed plans and specifications as directed.
5 Preliminary Design of the Project
Architect, Director of Physical Plant Planning, and Building Committee prepare preliminary designs.
4 Programming the Project
Campus Development Committee, Building Committee, Director of Physical Plant Planning, and Architect program or schedule the project.
3 Defining the Need
Building Committee, Campus Development Committee, and Director of Physical Plant Planning draw up statement defining the scope of the project.
2 Discovery of Specific Need and Statement
A need for a specific facility is identified and a Building Committee for that facility is appointed to work with the Director of Physical Plant Planning.
1 Master Plan of Campus Development
Campus Development Committee, Director of Physical Plant Planning, and Architect maintain continuous study of trends and future needs for facilities.
Line Responsibilities
Staff or Advisory Functions

Figure 1.—Flow chart for planning a typical campus building project.

The anticipated character and makeup of the future student body, aside from its size in enrollment, should be in the consciousness of the planners. Will there be a trend toward a larger share of commuting students than now? Or will a larger proportion require dormitory housing? How about married students? From what predominant family income level will they come? Will adult education and continuing education with its emphasis upon evening classes be more prevalent? Will the local situation be such as to permit a mutual sharing of community facilities such as an auditorium? Will an increasing proportion of the students require part-time employment? Will the ratio of women to men students change?

Other decisions in planning will relate to the way in which the institution conceives of its mission. Is there any positive intent to establish an enrollment ceiling? Is there a firm commitment in the matter of student-faculty ratio? Has a relationship been determined between curriculum divisions, affecting, for instance, the number of laboratory courses? Will all lower division students be required to register for basic studies? Is there a trend toward proliferation of courses or away from it? What is the attitude toward basic research? Applied research? What will policy trends do with regard to student autos and parking space? What will better space utilization do to plans for new facilities? Is the academic attitude favorable to trying educational innovations or is it definitely conservative? What may testing and guidance do in the way of changing relative enrollments in certain types of courses? What may be the effect of new areas of study such as the peaceful use of atomic energy? Are increasing use of independent study and self-teaching likely to shift the emphasis with regard to certain facilities?

In the planning process there will be certain determinations which will need to be made. It will also be necessary for the planners to be aware that certain other avenues leading to future decisions should not be closed by unfortunate actions in the planning stage. For instance, the possible future use of electronic devices and electrical equipment should not be precluded by failure to provide power outlets and conduit capacity. New trends in the use of equipment which require plug in sources of power must be anticipated in the stage of planning which involves the wiring. Not only is there a trend toward portable cafeteria hot and cold food units but also toward the use of such units as floaters which can be plugged in at areas not normally used for food service, such as ballroom, lounge, committee rooms, and the like. A battery of food warmers can draw very heavily on the convenience outlet and sometimes involve providing a separate 220-volt circuit. Future use of projection equipment should not be prevented by specifying a type of window which cannot be effectively darkened. Narrow doors, stairs, and corridors may prevent the moving of certain types of equipment into an area.

In the area of the library science changes are looming. Some previously decentralized are now being centralized, and others the converse. There is a trend toward central research libraries in urban areas. Microfilming of rare books has brought to even small campuses source material once available only to those who could travel extensively. Microphotos on cards suitable for use with a magnifying reader by a student in his room may make it feasible to issue to each student the basic references for an entire course on one card. Some libraries are trying the experiment of placing a lending library collection in each dormitory, using low-cost paper back editions of the classics. The acquisition of the ability to read rapidly, up to 20,000 and 30,000 words or more an hour, may imply some changes.

Some of the new techniques of teaching, of operation, and of administration are demanding to be evaluated. Television (both broadcast and closed circuit), video tapes, films, language learning machines, subliminal learning, tape recorders with playback, hypnosis, sleep learning—these may sound fantastic now but radio also once sounded fantastic. Larger institutions are experimenting with automatic registration and scheduling of class sections. Central data processing is now feasible for many institutions. Public opinion research may sense public needs in education earlier in the cycle of change.

With increased pressure to be more efficient in the use of space and time in the educational process there is certain to be a premium on flexibility in facilities. There are likely to be more multipurpose areas and more adaptability in construction features. There is a continual conflict of built-in features vs. portable equipment, centralized and pooled facilities vs. decentralized and duplicated accommodations. One tends to save on cost, the other to save time.

Engineers and architects will be interested in trends in construction materials and service features. Will the electric heating element replace the radiator for space heating? How much conditioning of the air will be feasible? Will the trend toward windowless rooms develop? What next will be made out of plastics, stainless steel, and light metals?

Rehabilitation

Several complex factors are involved in a decision on a proposal to rehabilitate an old structure. What are the alternatives? (1) raze it and build something new, (2) use it with as little further investment as possible until it is no longer usable, (3) abandon it. If it has structural value and is suitable for rehabilitation, there are other decisions: Is it to be enlarged? Are there traditional or sentimental elements of design to be preserved? How much changing of partitions is feasible or desirable? What is a fair basis of comparison on unit cost between rehabilitation and building a new structure? (The lower per-square-foot cost of rehabilitation may promise only a 20-year extension of its life, whereas a new structure may be expected to last 50 years.) The building of a new structure may provide facilities better suited to the specific requirements than would be possible in a rehabilitated building.

Unit costs of rehabilitation projects were computed from data collected along with the 1958–59 campus construction study.[1] Since no limits or definitions were included in the report form, "rehabilitation" could have included modernization and expansion as the situation required. A rehabilitation project may range in scope from a minimal operation of resurfacing some floors, repairing the roof, and a repainting of interior walls, to a complete gutting of the old structure, preserving only the classic exterior. In the latter case the unit cost may well exceed the cost of building a completely new building of the same size. There is thus a large legitimate latitude in the unit cost of various types of rehabilitation.

Also a certain degree of modernization is inevitable in a rehabilitation project except in cases of fire or storm damage. New fixtures, both lighting and plumbing, tend to be used to achieve the more modern standards in building codes. Adequate wiring is usually involved. Air-conditioning is sometimes feasible. Hazards to health and safety are eliminated.

The national average per-square-foot cost of all *rehabilitation* projects reported in the 1958–59 study, public and private, for buildings of all functional types in all regions was $7.50. Since the counterpart figure for *new* construction for the same year was $19 per square foot, it might be rationalized that rehabilitation, on the average, costs approximately 40 percent as much as new construction. There appear to be no normative data on the matter of the average life extension of a building due to rehabilitation.

Magnitude of Financing

Many administrators feel that the planning of the physical facilities for a campus-of-the-future is a pleasant pastime as compared with the chore of raising the money with which to pay for the buildings. However, the acquiring of capital funds is a necessary part of the planning. Failure on this score makes all of the other planning pointless. It may be more effective to have a campus-of-the-future plan and then seek the funds with which to bring it to realization than it is to go out after building fund money and start to plan the campus after learning how much money there is likely to be available.

It may be true, however, in the case of a State institution, that the money forthcoming from State appropriations will have to be shared with other State institutions. In this event, the scope of the planning should be lifted to the State level rather than for each of the separate institutions to go its independent way. Usually a State planning commission is involved.

Privately controlled institutions have a different financial problem. Usually the director of development (fund raising) has a limited number of prospective donors to be persuaded rather than a majority of the State's electorate (or their representatives) as in the case of a State college. Time-honored methods of presenting the claims of the institution upon the interest, the affection, and the generosity of prospective donors will no doubt be used in the future with at least equal success to that of the past. Here again there is likely to be a more positive response if some representation of the physical appearance of the ultimate campus-of-the-future is made. It at least signifies that the institution thinks it knows where it is going.

---

[1] *Progress in Higher Education Facilities, 1951–1959.* U.S. Office of Education Circular No. 665.

The engineer uses his slide rule to come up with an estimate of the size in square feet needed to accommodate the number of students which the admissions people have said should be provided for. Those concerned with cost should be in a position to estimate how much, within reasonable limits, each building or facility may cost and where the money will come from. The architect is usually prepared to render a rough sketch of how a proposed building or group of buildings will look.

The Place of Cost in Planning

When the question "What will it cost?" is asked, no one expects an exact answer in dollars; however, it is often essential to sound planning to have estimates which are sufficiently realistic to indicate the degree of feasibility of the project. Only after professional analysis of detailed plans and specifications can reliable estimates be projected and only after qualified bids are offered can there be any degree of confidence as to the ultimate cost of a new building. Nevertheless, the experience of the past or the records of other institutions can provide approximate cost ranges helpful for rough estimating purposes.

A study [2] of new construction completed in fiscal 1958–59 included more than 1,000 college buildings of all functional types in all regions of the country. For a major portion of these, both the square feet of floor area and the cost were recorded. From these data the average cost per square foot for all functional types for buildings completed that year was found to be $19. (The reported cost of a project did not include any equipment other than that which was built-in.)

Since the average size, by enrollment, of institutions of higher education is larger in public institutions than in private, the public institutions tend to build larger buildings. Other factors being equal, the larger the building, the lower the per-square-foot cost because there are more square feet to absorb the fixed cost items. In this study the per-square-foot cost of new buildings in public institutions was computed to be $18.40 as compared with $20.30 in private institutions.

When computed by functional types, the ratio between per-square-foot costs of public vs. private building follows a similar pattern for the most part. Residential buildings in this study cost $16 per square foot in public institutions and $18.20 in private; aggregate, $16.70. Auxiliary buildings, public, cost $19.80; private, $21.10; aggregate, $20.30. General buildings cost $21.30 for public and $24.50 for private; aggregate, $22.70. Research buildings cost $19.40 for public and $29.20 for private; aggregate, $24. Instructional buildings showed a slightly converse pattern: public, $20.30; private, $19.20; aggregate, $20.

On making an analysis of certain selected functional types within the general groups, it was found that hospitals, both teaching and nonteaching ($24.60 and $25.40, respectively, per square foot), were the most expensive type outside the research category. Infirmaries and food facilities ($23.20 and $23.10, respectively) were next highest. In the instructional group, the instructional laboratories ($22.90) were the most expensive. College unions, to the number of 42 completed that year, carried a per-square-foot price tag of $18.90.

Faculty apartment buildings cost $15.40 per square foot and apartment buildings for married students cost $13.70 as compared with dormitories for men ($17.80) and for women ($16.80). (The relative cost *per occupant* between apartments and dormitories might be quite a different story.) Hotel type accommodations, in the one project reported, cost $20.20 per square foot. Fraternity and sorority houses built by the college (8 projects) cost $13.80 per square foot.

By geographic regions, the only consistently different pattern of unit costs was in the Southeast. From the aggregate figures reported it may be deduced that colleges and universities of that region obtain between 20 and 25 percent more square feet of buildings for their construction funds than do other regions of the country.

---

[2] *Progress in Higher Education Facilities, 1951–1959.* U.S. Office of Education Circular No. 665.

The foregoing 1958–59 unit cost computations may be used for rough estimates if properly weighted for special requirements and local conditions. The probabilities for the future are subject to cyclical trends. Costs appear always to rise, never to fall. The big question in the case of any planned project is how much rise. The U.S. Department of Commerce composite construction cost index [3] shows an increase in 1959 over 1956 of approximately 9 percent. This is a 3 percent increase per year on the average. There is a continual tug-of-war between the rising cost index factors and the efforts of architects to achieve new and less expensive architectural forms and of builders to remain competitive by means of cost-saving techniques.

National Goals

Those concerned with providing facilities for higher education in the United States point out some general calculations: First, buildings wear out and have to be replaced. Assuming a 50-year average life of college buildings and expressing this need for replacement in terms of the number of students accommodated by the facilities needing to be replaced each year, or 2 percent of the student body in any given year, *instructional* and *general* accommodations should have been completed for 68,046 students (.02×3,402,297) in 1958–59 just to "stand still" in facilities. In addition, residential facilities replacements were needed for the 40 percent of these 68,046 housed on the campus, or 27,218 dormitory student stations. At $2,500 per student for instructional and general facilities and $4,700 per student [4] for residential accommodations, the total amount of money needed for replacements for that year was $298,040,000. The *increase* in enrollment between 1958 and 1959, fall terms, was 143,741,[5] for which, if enrollments had been requiring 100 percent of the capacity of facilities in 1958, an expenditure of $629,583,000 would have been required in order to provide instructional, general, and residential accommodations. Thus the total requirement for new buildings and replacement would have amounted to $927,623,000. Actually the expenditure for that year for new construction and rehabilitation was approximately $719 million. Presumably not all institutions were full to capacity either in 1958 or 1959, but it is a safe assumption that, based upon this lag of over $208 million, enrollments are overtaking the practical capacity of the facilities.

Staff Surveys

The staff from the Higher Education Division of the U.S. Office of Education has been called upon to make surveys of higher education in (1) States, (2) regions of States, and (3) institutions. Such surveys include, among other phases, physical facilities and the educational programs they house. Since surveys lead to recommendations, there is an implied element of analysis for planning purposes. Among these surveys have been those of (1) North Dakota, (2) South Dakota, (3) The Tidewater Area of Virginia, and (4) Howard College of Birmingham, Ala. Such recommendations as the following were derived from those surveys and are typical:

- That new construction be held in abeyance until a higher level of utilization of current facilities is realized.
- That remodeling and rehabilitation of certain buildings be given first priority.
- That classrooms of varying sizes be provided in planned new facilities to make better use of total space.
- That a better balance of supporting space (faculty offices, reading rooms, storage, etc.) be planned as related to general instructional space.
- That a qualified specialist in campus development be employed (State agency).
- That a long-range campus development program be started.
- That in building and remodeling, greater attention be given to such factors as daylight control; the colors of walls, ceilings, and trim; floors and suitable furniture.
- That certain temporary housing be replaced with permanent facilities.
- That the planning for auditorium and fieldhouse

---

[3] U.S. Department of Commerce, *Construction Review*, June 1961. p. 35.

[4] Bokelman, W. Robert, *and* Rork, John B. College and University Facilities Survey, Part 2 (U.S. Office of Education, Circular No. 603).

[5] Opening Fall Enrollment for 1958, also for 1959. U.S. Office of Education, Circulars Nos. 544 and 606.

building be coordinated with the action of the local community so as to avoid unnecessary duplication.

- **That in the planning of additional (public) facilities, high priority be given to areas of relatively high population concentration so that large numbers of students will be able to carry on their studies while living at home.**

Among the specific recommendations of the authors of this casebook are found such as follow:

- **That a growing school maintain a strong central planning office.**
- **That a campus planning committee be advisory only.**
- **That a written program be prepared on every major building project and approved in principle by everyone concerned before the architect begins work.**
- **That a master plan be adopted, be kept current, and be properly used.**
- **That planning be kept flexible.**
- **That academic programs be the first consideration and then facilities be built which will best serve the basic objectives.**
- **That the target size of enrollment for which facilities are being planned be limited by the amount of money which the college can supply to provide the difference between what the student pays and what it costs to educate him.**
- **That in advocating the establishing of a new community college every avenue of public information be used to inform the people of the district of the need.**
- **That in planning a consolidation of two or more institutions into one, the heads and appropriate administrative officers of the merging institutions be invited to participate in all planning activities.**
- **That means be provided in campus and building plans for possible adaptation to requirements of emerging techniques and equipment such as televisions and learning machines.**
- **That in planning a major project such as moving to a new location, in the case of a church-related college, to make sure of the enthusiastic support of virtually all of the contributing constituency.**
- **That in a major campaign for funds, assurance be secured that the trustees themselves will contribute substantially.**
- **That progress in new construction is always news and as such should be handled in conformance with its public relations value.**

Chapter II

The Cases

ONE VIRTUE of a casebook including a number of typical examples, each written by a separate author or authors, is that many legitimately differing points of view are presented.

In this casebook, one report was written by a director of the physical plant out of a rich background of experience in the planning, maintenance, and operation of a large and complex campus. Another was written by an administrator familiar with academic programs and the urgency of providing facilities which will fit the needs of each academic discipline. One was written from the point of view of public relations experts, with emphasis on getting the support of the taxpayers for a move to provide the educational facilities which the community needed. One was written by an architect who knows from experience at what points his profession can best contribute to effective campus planning. And so on through the list. In addition to the diversity of campus planning situations there is, therefore, a variety of personal backgrounds of the authors to give assurance that the casebook will have something for nearly every planner.

Variety of Planning Situations

The 10 cases included present a comprehensive scope of typical campus planning situations. There are large universities and small colleges, public institutions and private institutions. Various regions of the country are represented. This in addition to the variety of types of planning involved among the cases.

The writers have shared their experiences generously and each has sprinkled his report with timely advice—sometimes extremely practical and sometimes dealing with underlying principles. Some suggestions are concerned with physical facilities; others deal with people and programs.

In spite of the diversity of the planning situations represented by the cases selected there are a number of common denominators recognizable as applying to most campus planning. Not that they all tended to handle respective problems alike. For the most part they did not. It might be well to examine briefly a few of these common problems and how they were solved.

Mission and Goals

It goes without saying that a college or university ought to have a sense of mission of the institution as a whole and that a consciousness of that mission in definitive terms ought to pervade all of its planning. To whatever extent a college is conceived of in a distinctive reference or to a distinctive degree that distinctiveness ought to be set forth as often as necessary to insure being expressed in all decisions involving the planning of its physical facilities as well as its programs and personnel.

Implicit in the statement of the educational objectives of each of these cases is an awareness of its distinctive mission. The church-related institutions give to their expressions a religious flavor—"people shall be instructed in such branches as are usually taught in an academy of learning and also in the Old and New Testament, the Book of Mormon, and the Book of Doctrine and Covenants" (Brigham Young University); "committed only to Catholic doctrine and principles, the University is free to investigate and teach all areas of knowledge" (Saint Louis University); "clearly it was to be an institution with a towering Christian philosophy that was expected to permeate its life" (St. Andrews Presbyterian College); "It had its inception as an independent, interdenominational religious school, dedicated permanently to providing theoretical and practical instruction in several church vocations" (Barrington College); "In addition, the college offers training . . . of religious workers" (Methodist College); "promotion of the Christian religion throughout the world by maintaining and operating an institution dedicated to the development of Christian character and high scholastic standing" (Howard College). The most apparent aspect of this religious allegiance in campus planning is the chapel, but it also has implications in the emphasis upon liberal arts in the curriculum which is somewhat less demanding in regard to special facilities than the more professional programs would be.

The publicly controlled institutions among these cases tend to let the reader take for granted their general mission in the area of education, that of affording to the children of the people a means by which to realize their intellectual potential.

Educational Program Implications

Publicly controlled institutions and the larger of the privately operated universities tend to departmentalize their several objectives, first in basic studies and then in specialized fields. "It is the purpose of the College of Basic Studies to provide that part of the students' education which should equip him for better living" (University of South Florida). This institution's statement of objectives goes on to say that more intensive study will be selected by the student from among several major fields but that even these are not intended to prepare specialists. In cases such as San Francisco State College, the move to a new location offered an opportunity to recognize in its campus planning a basic shift which had taken place, that of changing from a teachers college to a large liberal arts college with professional and preprofessional curricula and 5-year programs leading to the master's degree in addition to teacher education. Standards of space allocation and time utilization were established by the State Board to guide the planning at each institution.

Projections of Enrollment

Not all of the institutions detailed their process of projecting enrollment trend lines into the future. Some such as Brigham Young University refer to the attention which was given to growth characteristics of the academic distribution pattern currently observed. Such standards of relating student numbers to building space as those established by the University of California were used. St. Louis University illustrated the growth of urban institutions in which separate growth patterns were developed for part-time students, largely evening classes, since growth in evening classes has different facilities implications than full-time day student registration. Florida has an element of growth not present in some parts of the country, the in migration not alone of retired people but also of families with growing children.

Methodist College, being a privately controlled institution, could establish an optimum target enrollment of 1,200 students above which some duplication of facilities would be required, and built its new campus to that ceiling.

In the case of South Plains (junior) College, a specialist was employed to direct a district-wide survey of population trends, of high school seniors, and of their likelihood of attending the proposed new college. St. Andrews Presbyterian College contemplated starting its existence with an enrollment approximating the total current enrollment of the three colleges which were consolidated to form it. In this case also a target enrollment was envisaged, 2,000, which might be realized in the foreseeable future.

A series of comprehensive studies of the needs of California in higher education was available to the planners of San Francisco State College. It was necessary for them to integrate their planning with the plans of all of the other colleges in the State system.

In some of the new institutions only freshmen were admitted for the first year of operation. As a new freshman class was admitted each succeeding year and other classes moved up, the scheduling of the completion of facilities and of staff recruitment had to be synchronized.

Role of the Planning Authority

In the case of a totally new institution some one person or agency or group of interested persons had to originate the idea of the new college. This might be a civic group (Methodist College), an educational leader (South Plains College), a State board of higher education (University of South Florida), or a church body (St. Andrews Presbyterian College). In order to obtain a charter there had to be created a board of control to represent the corporate entity, hold authority, and render accountability. The board of control is therefore the ultimate authority for planning. Such a board usually delegates some portion of that responsibility to regular staff personnel or employs a professionally trained planner. A publicly controlled institution may be required to relinquish a portion of its planning authority to the planning agency of the governmental unit (San Francisco State College). Committees of faculty and staff are often brought into the planning process for the benefit of their more intimate knowledge of special needs. A larger institution may have a department of campus planning and development (Brigham Young University). Professional services to be retained include—competence in educational specifications—what courses and programs are to be offered and what the physical facilities requirements are for each, and a campus planning expert who knows intimately the requirements of campus functional interrelationships and planning for growth (St. Andrews Presbyterian College); a landscape architect (Howard College); and the official college architect. In some cases a firm of architects, with much experience on college campuses, may also provide the necessary professional guidance for campus planning and for landscaping. Some have personnel qualified to assist with the selection of furnishings and equipment.

Selecting the Site

In each of the cases where a new campus site was involved there is much evidence of thought and planning on the selection of that site and on providing an ample amount of space for future growth. In the other cases there was preoccupation with the acquisition of more land contiguous to the existing campus.

The University of South Florida acquired in two grants, approximately 1,700 acres of land adjacent to Tampa, on a site which studies had revealed to be feasible and desirable for a campus. The North Carolina Conference of the Methodist Church accepted the offer of a committee of public-spirited citizens of Fayetteville of an adequate site near that city. The Board of Regents of South Plains College of Levelland, Tex., rejected the offer of donation of various sites for its campus and purchased for a negotiated price a tract deemed to be adequate in size and location. In the case of St. Andrews Presbyterian College, a Synodical survey commission with its advisory council recommended that the proposed new college be located in central or eastern North Carolina in a "population center where, in addition to the interest and support of the constituency, cultural opportunities and advantages are afforded the student." Laurinburg was found to fit these conditions and a parcel of land comprising 840 acres was chosen.

Choice of a site to which to move the San Francisco State College campus was limited for there were few possible sites within the city large enough to accommodate a college of its size.

Howard College retained the services of a sociologist to make a survey of population trends in the Birmingham area and as a result a location in the Homewood suburban section was chosen.

Role of the Architect in Campus Planning

The point at which the official architect of the college enters the planning process may vary. If he is involved in long-range campus planning as indicated by Mr. Hunter at Colorado State University, he will meet regularly with the campus planning or development committee. If he is retained to provide architectural services only and on an ad hoc basis, he may be handed a schedule of instructions or written programs for each building as it has been approved (Brigham Young University). The choice of an architect and the delineation of the scope of his function may be determined at a higher level than the institution in cases of State-controlled institutions (University of South Florida and San Francisco State College). At the University of South Florida so much architectural service was required at one time in order to enable construction work to start on five major buildings at once that no one firm in the area was large enough to prosecute the whole program without sacrificing the interests of other patrons, so each of five firms was assigned one building and their work was coordinated through the office of the president.

Previous experience in designing college buildings (if not in campus planning) appears to have carried much weight with boards of control in selecting an architect (Methodist College, South Plains College, St. Andrews College, Howard College, and Barrington College). Accessibility due to the location of his office nearby, was a factor in some instances.

Integration of the New With the Old

New facilities, whether they be located on a whole new campus or added to an existing campus, do not come into being in a vacuum. A new campus must associate and communicate with its neighbors. Good public relations should be built-in at the planning stage. This aim appears to have been realized in the case of each of the new campuses included in this casebook. A college is a community asset. Its facilities should supplement those of the community (Barrington College) rather than duplicate them. Integration of programs and exchange of credits with nearby sister colleges will preclude some facilities duplication (University of South Florida, Methodist College, Howard College).

The expansion of an existing campus so as to integrate the proposed new buildings with the older buildings and to use the remaining campus space to the best advantage are often a bugbear in the planning process. At Brigham Young University the presence of some temporary buildings was a part of the problem for they had to continue to serve while the new facilities were under construction. At Saint Louis University a men's dormitory had been built in an earlier day near the center of a campus crowded with academic buildings in a location which would have been better suited to a library. In determining which of the older buildings to retain and for how long, Saint Louis University employed the services of an engineering firm to make a thorough study of the structural soundness and to estimate the future usefulness of each building along with its utilities lines and fixtures.

An important part of the planning for new buildings is the disposition of space in older buildings released by departments to be moved into new quarters. Each such facility must be surveyed as to its functional feasibility for reassignment and for any need for remodeling. The assignment of such space is then a part of the total planning task.

As difficult as it is to integrate new campus buildings with older buildings of an earlier architectural era, the epitome of frustration is the maintenance of standards of beauty, safety, and utility on a campus in a degenerating neighborhood. This is the sad situation in which many urban educational institutions find themselves. Fortunately there is a way out for many such colleges and universities in the federally sponsored provision for urban renewal. The University of Chicago case is an excellent reference work for the planners in that dilemma.

Scheduling and Lead Time

Unless sufficient space is already owned the acquisition of new land for building sites will claim the early attention of planners. Sometimes price penalties attendant upon the release of news of advance planning activities can be avoided by quietly picking up various desired tracts long before the time of actual need or by using discreet intermediaries. The Saint Louis University case and the early history of the University of Chicago emphasize this point.

The establishing of an order of priority for new buildings and scheduling their completion is essential. From preliminary plans to a completed structure requires a minimum of 26 months, according to the schedule outline by Saint Louis University. "It is possible to erect a million dollar building in a year, but only by incurring unnecessary expenditures and risking a poorly planned structure." Three years would be a safer schedule, they say. The University of South Florida indicates that the lead time between the legislative appropriation and the time the building can be used is 30 to 36 months in their case. Adding on the time required for original planning, for action by the Board of Control, and by the State Budget Commission, brings the total lead time to approximately 4 years.

The five buildings deemed to have first priority in the establishing of a totally new university in the case of the University of South Florida were: an administration building (including 18 rooms used temporarily as classrooms); the university center with food service facilities; bookstore and 16 classrooms; a chemistry building (adaptable to being temporarily shared with physics, zoology, geology, and astronomy); a teaching auditorium, and a library. A central plant with heating and cooling equipment and campus distribution lines was equally essential. Methodist College in determining the order of priority for the first buildings on its campus, began with a classroom and faculty office building, also housing temporarily the administrative offices and the library. One of the first groups of facilities was a science building including a large lecture hall used temporarily as an assembly hall. The campus union building and cafeteria was considered one of the first essentials. The campus heating plant comprised the fourth building, to which was added a wing providing locker and shower rooms for physical education.

St. Andrews Presbyterian College determined upon certain buildings as having priorities: (1) the main academic building, (2) the library, (3) the first unit of the college union, (4) dormitory facilities for 600 students, and (5) music conservatory. Later buildings to follow on the long-range campus plan, included an auditorium, the chapel, an administration building, and physical education facilities.

San Francisco State College adopted a priority order governed by practical considerations of crowded conditions on the old campus and of having to operate on two campuses for several years. This dilemma was partially solved by careful scheduling of class sessions during the interim. The gymnasium was the first building occupied. Next was the building to house the sciences. Others followed in a sequence which current exigencies dictated.

At Howard College the administration building was the first of 10 buildings completed on the new campus. Others completed before moving the college were the library, two laboratory buildings, two dormitories, the college union, and a fine arts building. The chapel was completed soon afterward. The president's residence nearby was purchased.

Flexibility

Campus buildings once were "built for the ages." More recently flexibility is the watchword. It may be some time before college buildings will be conceived in highly temporary terms and be replaced whenever the functional emphasis changes. In the meantime every construction feature is being exploited which will promote flexibility and maneuverability of the interior space.

The desire for flexibility was realized in the construction detail of several of the cases—the use of metal partitions and other non-load-bearing partitions, so that interior walls can be readily moved or removed (Methodist College); planning on a modular basis (Saint Louis University); the convertibility of space from laboratory to classroom and from classroom to office (Howard College), and equipment for use in a temporary space assignment being bought from the list of equipment designed for the permanent quarters (Methodist College). South Plains College planned some of its buildings so as to facilitate the addition of new wings in the future. Lavatories were therefore located near the extremities of the buildings so that they could serve also the occupants of the future new wings. This institution and some of the others planned some multipurpose space, a luncheon service facility doubling as a recreation area, and a band room suitable for a classroom. Methodist College built small apartment-type buildings to house a limited number of students and later when a dormitory is built the small units will convert readily to use by faculty and married students.

Accreditation

For both the new and the growing institution it is essential that the planning authority be aware of minimum physical facilities requirements laid down by its regional accrediting agency. Accreditation is also one requirement to qualify for a college housing loan application.

One phase of the process of the accreditation is the inspection of an institution's physical facilities to determine whether they are adequate and properly balanced. In the case of a new institution, however, this is not likely to be the main problem. In order to attract students, the college must give assurance of the transferability of credits. But to be eligible for accreditation it usually must have graduated one class. This dilemma, at first glance, takes on the appearance of an impasse, as pointed out by several of the authors. From such restrictions one might get the impression that an aura of illegitimacy surrounds any new institutioin. It should be said, however, that reasonable abatements have been recognized by which a new institution may acquire a provisionally accredited status.

Adequate Financing

Many books, brochures, and articles have been written in the field of financing capital plant expansion of colleges and universities. This casebook in the general field of campus planning would hardly be the place to attempt an extended treatment of the subject. However, all of the institutions among these cases present the problem in one way or another. There may be little that is new herein, but it will be interesting to some readers to find their own concerns mirrored in these cases. The types of problems tend to group themselves either as applying to publicly financed operations or to those privately financed, but not entirely. Some private money goes into public institutions, and some public money, at least in loans, goes into private institutions. Both (publicly and privately supported institutions) write of the use of the College Housing Loan Program to finance the construction of dormitories.

Public financing.—The problem in publicly supported institutions cannot be dismissed with the simple prescription "just give the voters the facts." As the case of San Francisco State College illustrates, the fiscal policies of a State pertain to each and every State institution and the tax revenues have to be apportioned on some rational basis. There is the tendency to draw up construction budgets in conformity with what each administration thinks the State department of finance will approve. In California, each State college establishes its priority of projects on a 5-year schedule, and a program for all State colleges results.

At Colorado State University each proposed project goes through the process of critical evaluation called "putting it through the wringer." In many States, even though the appropriations are made by the State legislature, the institutions take their facilities needs to the people in order to generate popular support.

Timing is very important in requesting commitments of public funds. In some States the legislature meets only in alternate years and if one biennial session is missed, there is a 2-year lag in any planning steps which involve expenditures.

The South Plains College case illustrates one commonly used procedure for obtaining public financing for a junior college or a community college. A college district is authorized by popular vote and the district assumes the funding obligation by authorizing general obligation bonds usually secured by real estate and paid through mill levies on assessed valuations. In some States, State revenues are made available for at least a portion of the cost of construction of a community college.

Private school financing.—Financing new construction in private colleges and universities takes many forms. Aside from Federal loans for dormitories and other auxiliary facility buildings, little public money is available in most States. Contributions from local civic groups and public-spirited citizens are not uncommon, and such donations are often in the form of site real estate. Church-related colleges often receive grants from their respective State, regional, or national bodies. Howard College, Brigham Young University, and Methodist College are cases in point. On the other hand, some colleges which have nominal ties with their designated church affiliations obtain a very small proportion of their support from that source.

Howard College obtained capital funds from the General Education Board of the Rockefeller Foundation. There are many other foundations which are interested in educational institutions.

Experience is divided as to the use of development-fundraising organizations, but where an outside organization is not retained, the college itself usually employs a professional fundraiser on a staff basis. One of the authors says, "Institutional fundraising is a science that can be studied." It could be added that fundraising is also an art and a profession. Such an assignment is no task for a tyro, even though well-disposed. In several of the cases the raising of construction funds by solicitation is mentioned without detailing the agent. Some of these instances may well have involved the use of professional development fundraisers.

Often members of the board of control are nominated not alone for their valued counsel and guidance but also for their financial potential in gifts. "Where your treasure is, there will your heart be also" may work the other way. A professional fundraiser told the president of Barrington College, "Unless your trustees themselves give substantially toward reaching the financial goal of your fund drive, you will not make a success of this effort."

Of course the sale of college property, as in the case of moving to a new location, may be a significant source of construction funds. Howard College realized a half million dollars in that way. That college also benefited continually through the activities of its ladies' auxiliary.

Self-liquidating loans are the normal source of construction funds for income-producing facilities, such as dormitories, married student housing, faculty-staff housing, college unions, and bookstore buildings.

Howard College, among others, warned of the danger that a major effort to acquire capital funds might be permitted to overshadow other urgent needs such as providing for recurring operating budgets and planning to augment them to take care of the expanded campus.

Matters Not Covered

It might be appropriate to note here the absence of any mention of space utilization studies as applying to institutions faced with problems of growth. The lack of mention does not necessarily mean that none was made. Nor would the statement that such studies were made give assurance that they had resulted in appropriate action. An alert administration in its planning will not overlook the values to be gleaned through a more intensive or better balanced use of the facilities in being before asking for funds for new buildings.

Planning the purchase of equipment for new buildings was not covered in several of the cases. Creativity and the forward look is characteristic of architectural and engineering planning for a new college structure. To "make-do" with furniture and equipment good enough for a by-gone day is to stop short of a complete unit of planning. This lack, where it exists may often be traced to an inadequate budget. In the absence of early planning by line item of all of the equipment and furnishings for the new building with each item priced and extended, a formula figure for such requirements is sometimes improvised which may or may not prove to be adequate. Sufficient lead time for selecting, fabricating, and delivering furniture and equipment is also an important element of the planning. To have it delivered too early involves a storage problem with attendant risks, and to have it delivered too late prevents the intended use of the new facility and is awkward and irritating.

These cases were all written before there was much mention of the need for fall-out shelters in the current cold war situation. Now, of course, many administrators are deeply concerned as to the degree of their responsibility to provide some such protection for the people under their care. While new and remodeled buildings are being planned is the time to face the problem and reach a decision. It is likely that other currently productive uses for such space will be considered and planned for.

Campus safety did not receive extensive treatment by the writers of these cases. It is an element which can be and by all means should be covered in the planning stage of new or remodeled facilities. If the institution does not have its own safety engineer or someone trained in that field, the architect should be urged to avail himself of the services of that variety of specialist. As an example: plate glass doors should be specified to be provided with metal bars, likewise plate glass panels adjacent to doors which look like doors, to prevent the unwary from walking through the glass.

Chapter III

BRIGHAM YOUNG UNIVERSITY typifies a vigorous, growing institution with room in which to grow. The planning foresight exemplified in this case and the manner in which professional skills are applied to problems of growth as they pertain to physical facilities are worthy of study by other planners. The reader should note the manner in which the requirements of the prospective users of the facilities are expressed in a detailed "written program" supplementing a set of general instructions to all architects.

Expanding Brigham Young University

By Sam F. Brewster

Director, Department of Physical Plant, Brigham Young University

BRIGHAM YOUNG UNIVERSITY is located in Provo, Utah, a city of more than 40,000 population, 45 miles south of Salt Lake City. The main, or Upper Campus, of the University lies 100 feet above the city. From the campus one obtains a panoramic view of the city below, Utah Lake, and the mountains enclosing the valley. The mountains and canyons near Provo are excellent for hiking, fishing, hunting, and winter sports.

Historical Background

Brigham Young University was established pursuant to a deed of trust executed by Brigham Young, President of the Church of Jesus Christ of Latter-day Saints, on October 16, 1875. That deed expressly set forth that the "people shall be instructed in—such branches as are usually taught in an academy of learning," and also "in the Old and New Testaments, the Book of Mormon, and the Book of Doctrine and Covenants." A group of seven persons appointed by President Young comprised the first Board of Trustees. At a meeting on November 22, 1875, the Board of Trustees organized the Academy and Warren N. Dusenberry was selected to become the first principal. After conducting the first preliminary term, which ended April 15, 1876, he resigned to practice law.

Brigham Young then selected Karl G. Maeser to become the principal of the academy and sent him to Provo, Utah, with these instructions: "I want you to remember that you ought not to teach even the alphabet or the multiplication tables without the Spirit of God. That is all. God bless you. Goodbye." Dr. Maeser served as principal of the academy from April 24, 1876, to January 4, 1892, a period of 16 years. An old building, consisting of one large room and a stage, was the first home of the new academy. By 1882 this building was found to be totally inadequate for the needs of the school and additional rooms were added. However, this structure was entirely destroyed by fire January 27, 1884. Temporary quarters were obtained and the school continued with the loss of only 1 day of school. During the summer of 1884 arrangements were made for the use of the upper floor and part of the lower floor of a warehouse on University Avenue.

The transition of the academy into Brigham Young University, the University of the Church of Jesus Christ of Latter-day Saints, has been marked by periods of great financial distress. Brigham Young died before he had provided for the endowment of the institution. This left the school without any assured source of income. In the early days of the school, when no funds for the budget could be found, the board of trustees even considered closing the academy.

On June 8, 1888, there was organized a General Board of Education of the Church, consisting of nine members. This board directed the activities of the school, but the power of appointment of the board of trustees remained with the heirs of Brigham Young until July 18, 1896, when, by the adoption of the articles of incorporation of the university, the right of appointment was granted to the First Presidency of the Church, through the consent of the heirs of Brigham Young. By this action, the church assumed the indebtedness of the institution and accepted the responsibility of maintaining Brigham Young University.

On January 4, 1892, the school was moved to what is now known as the Lower Campus and into what is now known as the Education Building. This building was the first structure built entirely for the University. In 1898 College Building was constructed and in 1902 a training school and gymnasium. In 1904 the present Arts Building was completed.

The young, growing school was still to have financial difficulties, but it was definitely established and on its way. In 1894 the title of the head of Brigham Young Academy was changed from "principal" to "president," and in 1903 the school became Brigham Young University. In 1904 the students and faculty began negotiations for the purchase of 17 acres of land known generally as Temple Hill. This land, purchased from Provo City about 1907 at a cost of $1,000 was the beginning of the present campus. A survey of the land purchased showed that about one and one-half acres at the point of the hill was not included in the deed given by Provo City. The students and faculty members of the school voluntarily raised an additional $1,000 to pay for this land. The first building constructed on the site of the new campus was the Maeser Memorial Building, the cornerstone of which was laid on Founders Day, 1909. It was ready for occupancy by the fall term of 1911. In 1913 the Women's Gymnasium was erected and in 1919 the Mechanic Arts Building was constructed.

Dr. Franklin S. Harris became President of the University on July 1, 1921, and served until June 30, 1945, a period of 24 years, the longest term of any president. During his administration, the University was organized into five colleges—Applied Sciences, Arts and Sciences, Commerce, Education, and Fine Arts—and the Religion and Extension Divisions were established. The Graduate School was formally organized and a dean of the Graduate School appointed. The Heber J. Grant Library was completed in 1925 and the Stadium in 1929, and during the last 10 years of his administration a building program was begun which has been accelerating ever since. It was President Harris who first envisioned the present expanded Upper Campus of the University and indeed who made it possible by his extensive purchasing of additional properties surrounding the land originally purchased for the Upper Campus.

Howard S. McDonald became the next president of the University and served from July 1, 1945, to October 30, 1949. Under his leadership the school experienced a major expansion. Under President McDonald's direction the Eyring Science Center was begun, being completed in 1950. Called by many educators the finest, most modern science building between the Mississippi River and the Pacific Coast, it has four stories and contains 153,054 square feet of floor space. During his administration the planning and architectural drawings of buildings for the university were assigned to a university architect. The buildings and grounds were placed under the direction of a superintendent of buildings and grounds.

Dr. Christen Jensen acted as President of Brigham Young University during 1939–40, and again from November 1, 1949, until the early part of 1951. Under his direction the Eyring Science Center was completed and the plans for the George Albert Smith Fieldhouse, which has a seating capacity of 10,650 persons, were approved.

Period of Rapid Growth

In 1950 Dr. Ernest L. Wilkinson was selected by the board of trustees as the new president. He began his period of service in February 1951. Since that time, the university has experienced more than 100 percent increase in enrollment. The faculty has witnessed an even larger proportionate increase in number; and the 5 colleges, 1 school, and 2 divisions previously comprising the university have become 11 colleges, 1 school, and 1 division, as follows: Biological and Agricultural Sciences; Business; Education; Family Living; Fine Arts; General; Humanities and Social Sciences; Nursing; Physical and Engineering Sciences; Physical Education; Religious Instruction; Graduate School; and Division of Adult Education—Extension Services.

During the first semester of the 1960–61 school year there were enrolled at the university 4,270 single men, 4,052 single women, and 1,983 married students for a total enrollment of 10,305. It is anticipated that the cumulative enrollment for 1960–61 will exceed 12,000 students. During the semester 662 faculty members and 550 full-time nonacademic people were employed at the university. In addition, there were 2,030 students employed part time (none to exceed 20 hours per week). During the administration of President Wilkinson (1951 to date), the following permanent buildings have been completed and are in use:

	Square feet
Student Service Center	29, 596
Women's Residence Halls (24)	382, 024
Engineering Building	39, 018
Classroom Building	67, 229
Plant Science Laboratory	16, 371
Student Health Center	17, 220
Family Living Center	105, 565
Men's Residence Halls (7)	285, 369
Cannon Hall (houses dining, recreation and business affairs for Men's Residence Halls group)	42, 550
Motion Picture Studio	16, 509
College of Business Building	78, 687
Industrial Education Building	36, 325
Fieldhouse	118, 412
Miscellaneous	19, 806
TOTAL	1, 254, 681

The following permanent buildings will be completed by July 1961:

	Square feet
Administration Building	100, 000
Library	250, 747
TOTAL	305, 747

During the same period (1951 to date) 117,227 square feet of temporary space also has been provided. This means that between 1951 and July 1961 the university will have added 1,560,428 square feet of permanent space and 117,227 square feet of temporary space to its physical plant. This is a grand total of 1,677,655 square feet.

By July 1961 the total university floor space will be 2,065,251 square feet of permanent space and 293,890 square feet of temporary space—a grand total of 2,359,141 square feet.

During the period from 1951 to date the heating system has been converted from steam to high temperature water, and a loop system has been constructed to carry heat to all existing buildings and to all buildings contemplated in the foreseeable future. Also, storm and sanitary sewer systems have been completed to care for present and future buildings. The electrical distribution system is being modernized and extended. A peripheral road system has been built to serve the university, and permanent parking lots have been established. In addition, extensive work has been done in landscaping and improving the appearance of the entire campus.

Several new projects have been authorized by the board of trustees to keep pace with the ever expanding requirements of the university. Scheduled for bidding and start of construction in February, March, and April of 1961 are the Alumni Building (11,000 square feet); Married-Student Housing (462 units—423,987 square feet); Y Student Center (Union Building—285,503 square feet); and a Fine Arts Center (224,000 square feet). The Library, Y Student Center, and Fine Arts Center will be the largest buildings of their kind in the Intermountain West. Plans are complete for a Physical Plant Building (80,000 square feet). Programing is advanced and planning will be started in 1961 on a Physical Education Building (175,000 to 200,000 square feet), additional housing for women (504 women—111,429 square feet), and a Creamery Building.

When Brigham Young University was founded in 1875, it had an enrollment of 29 students and teaching was done principally on the elementary and high school levels. At that time nearly all of the students came from Utah County and its environs. The students that have registered during the last few years have come from all of the States of the Union, the District of Columbia, the Panama Canal Zone, and 50 foreign countries. Approximately 62 percent of the students are from outside the State of Utah, and this percentage is increasing each year. Membership in the Church of Jesus Christ of Latter-day Saints is not required for admission, although at the present time 94 percent of the students are members of the church.

The development and operation of Brigham Young University is accomplished entirely from funds appropriated by the Church of Jesus Christ of Latter-day Saints; revenue-producing activities; student fees; grants, gifts, and donations; and the University Destiny Fund (long-range gift development program).

Land Acquisition

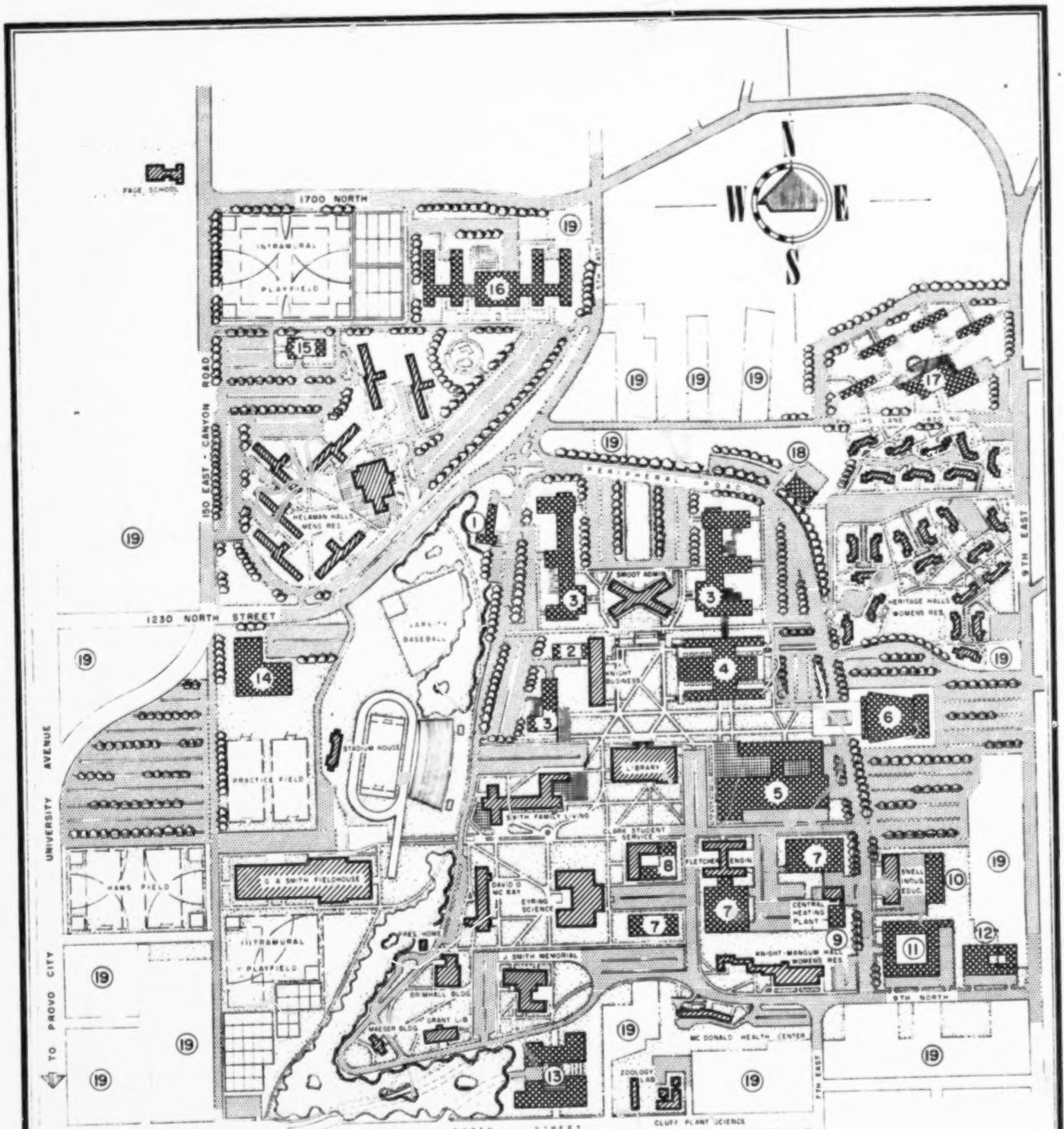
During 1956 the need for additional land became critical. This need was pointed up by the increased demand for on-campus housing for both single and married students. At the same time it was observed that the open ground immediately north of the university property was rapidly developing into subdivisions. A committee was appointed to study the property situation and to make recommendations concerning land which the university should acquire. The committee's report was presented by the administration to the board of trustees on May 27, 1957, at which time approval was given for the purchase of certain portions of the land recommended by the committee. At the present time, there are still pieces of private property that should be acquired in order to insure the orderly, logical development of the university over the next several years. The university, however, is continuing to follow a systematic program of land acquisition.

Campus Planning

It is obvious from the preceding historical sketch that the early years at Brigham Young University were often difficult ones. The school developed slowly, and it appears that the early planners and administrators never suspected that the school would become as large and as diversified as it now is. This does not mean that the early administrators of the university did not appreciate the value of planning, because we find that a general campus plan was developed by the architectural firm of Ware and Treganza in 1909. Later builders, however, did not adhere very closely to the plan. In 1948 a general campus development plan was made by the university architect, Fred L. Markham of Provo, Utah. This plan did not foresee the rapid and extensive growth of the university, but it established the location of four major structures. The rapid acceleration in student enrollment which occurred in the late 1940's and early 1950's and the projected increase forecast for the late 1950's and 1960's led to a complete reappraisal of the 1948 campus plan.

With the anticipated enrollment set at 12,000 students and all land to the base of the bill immediately north of the existing campus acquired, the board authorized the retention of a consultant to assist in the development of a new master plan. William Wurster of the University of California was retained; and with his advice and help, and under the direction of the Campus Planning Committee, the university architect expanded and revised the earlier design, incorporating the newly acquired properties to provide for the anticipated expanded student population. This plan was embodied in a model, and in June of 1953, with Mr. Wurster present, the model was presented to the board of trustees and there approved. Additional major buildings were located and built in accordance with the 1953 plan, and the future pattern of the development of the physical plant was to a large degree established.

In October 1957, the Department of Campus Planning and Development and the Department of Physical Plant were consolidated into one department—the Department of Physical Plant—under the administrative direction of one person—the director of Physical Plant. Three major sections within the Department of Physical Plant were established as follows: Planning, Construction, and Maintenance and Operations. Work on the development of an enlarged, more comprehensive master plan was immediately undertaken.



Brigham Young University's master plan as approved in 1957 and revised in 1960. This is an example of a comprehensive development plan, long-range but flexible. Construction on buildings 1, Alumni; 4, Fine Arts Center; and 5, Y Student Center (Union building) started in the spring of 1961.

The planning personnel of the Department of Physical Plant, working closely with the university architect who had developed the 1948 and 1953 plan and who had made several additional studies, presented a plan in November of 1957 which was approved by the board of trustees. All buildings, utilities, and roads since that time have been constructed in accordance with that plan.

Continuing studies over the next 3 years developed new and broader ideas so that the master plan was again revised in December of 1960. It is the same basic plan, however, that received approval in 1953 and that was subsequently enlarged and refined by others. It is expected that the master plan will be restudied, revised, and redrawn again and again as the University grows and develops. The plan always can be kept fresh and workable if future planners continue to study and revise but always keep the framework or skeleton of the basic master plan. In this way there can be maintained a predetermined scheme of things that still will allow for changes and additions of which earlier planners were not aware.

In August of 1957 a planning committee which had been appointed by the President made its report, entitled "Report of Planning Committee for Brigham Young University, Comprehensive Campus Plan, 1957." Under the "Scope of Project" the committee had the following to say:

> This report is the result of several months' intensive study pointed toward the development of a more comprehensive general campus plan for Brigham Young University. Its preparation has been pressed to give firm support to and direct the location of the new structures required by the rapid growth of the institution.
>
> The study has given careful attention to the growth characteristics of the academic pattern established at present. Studies of the distribution of students in various colleges in the fall quarters of 1955 and 1956 were made available to the Committee. These, expressed in terms of "full-time equivalent" students, have proved very helpful in determining the relative loads carried by the various colleges and divisions. In general, the method of procedure followed in relating student numbers to building space, has conformed to that utilized by the University of California, with which Mr. Tippetts, a member of the Committee, was familiar.
>
> The reports of various groups who have conducted special studies related to the campus development have been used. These include the committees on housing, committee on land acquisition, committee to study the stadium facilities, as well as the departmental committees which have made detailed analyses of the building needs of their particular colleges.
>
> It is hoped that this general summary of campus needs and the suggested program of development, will be useful to the administration and the Board of Trustees in outlining the growth pattern for the institution.

This complete and valuable study formed the basis for preparing the 1957 master plan (See p. 21) and laid the foundation for the coordinated, stepped-up program of land purchase which has been carried out since that time.

The planning committee in its August 1957 report had this to say:

> Subsequent to the approval of the Master Plan in 1953, certain developments have made necessary reconsideration of the plan previously approved. These became evident in late 1955 and resulted in a request to have a second set of consultants review the campus situation. On November 9–12 of that year, Simon Eisner, a Consulting Planner from Los Angeles, California; Carl E. McElvy, an Architect employed with the State of California working directly upon the campus of the University of Southern California; and Robert J. Evans, Supervising Architect for the University of California as a whole, visited the campus and reviewed all previous work. Their recommendations have been carefully considered in the development of this report.
>
> One of the important results of their visit was the pointing of circumstances which makes the restudy of the campus plan desirable. Some of the developments which the Committee considers important are as follows:
>
> 1. In the 1953 study, 12,000 students was established as the ultimate student population on the campus. Since that time it has been recognized that this figure needs to be increased to at least 15,000 students, and all present studies are being based upon this latter figure.
>
> 2. The effect which the reorganization of the Church School System under a single administrative head might have upon Brigham Young University has become increasingly evident. The determination to establish junior colleges in areas where the demand justifies, and the policy to encourage young people in the vicinity of these junior colleges to remain at home, will undoubtedly place more emphasis at Brigham Young University upon upper division and graduate work. While it appears there will always be a fairly large lower division student body, the percentage of upper-classmen under the new arrangement, will undoubtedly increase. The breakdown of registration for the fall of 1956 shows lower division, 68.8 percent; upper division, 29.1

percent; graduate, 2.1 percent. It is very possible that when the 15,000 student population is stabilized, this percentage may give us 42 percent lower division, 42 percent upper division, and 16 percent graduate.

3. The impact of the general upgrading of academic standards is not fully observable at the present time, but it has exerted and will exert a strong influence upon the University program. Equally important are the studies presently under consideration of optimum class size. These, together with the possibilities for additional research, which corporation gifts have made possible, will continue to modify the general situation.

4. With the increase in the student body, there has developed a general increase percentage-wise in the number of out-of-State students as compared with students within the State, and particularly students living at home. This situation is reflected in detail in the reports of the Campus Housing Committees. Of special interest also is the increase in percentage of the student body of married students. The experience of the past few years at this campus, and the vast majority of other campuses throughout the country, indicates a marked increase in this student group. This will be further accentuated by the shift from lower division to upper division emphasis at Brigham Young University.

5. The decision to organize a new stake (Church organization) at Brigham Young University has had a direct influence on campus accommodations and is a definite factor in further planning.

6. The evident need for additional land immediately adjacent to the campus, which was pointed out during the 1955 visit of Mr. Evans and his group to the campus, together with the rapid community development in these areas, led to the appointment of a special committee to consider land acquisition.

7. The accelerated growth in the community, particularly the subdivision developments north of the Brigham Young University Campus, makes it advisable to consider the feasibility of re-establishing certain University functions, which require large acreages at a distance from the campus proper. These are:

A. Farm property purchased in the vicinity of Spanish Fork.
B. A new stadium site now in the course of acquisition.
C. Motion Picture Studio development.

8. The effect which the reorganization of the University structure has upon distribution of students through the colleges, and its influence upon the course offerings and registrations therein can be seen more clearly now than earlier. This is particularly marked in the instance of the new colleges: Physical and Engineering Sciences, Nursing, and Family Living.

The 1957 planning committee outlined in its report the basic concepts which its studies indicated should be considered in the development of a revised master plan. (A revised master plan, as previously noted, was subsequently developed by the University and approved by the board of trustees in November 1957.) The revised master plan (1957) followed closely the planning principles and objectives of the 1957 planning committee which were as follows:

> The present planning committee has reviewed the work of previous planning groups who have worked upon the campus planning development, giving reconsideration to the objectives and principles which have led to the establishment of earlier plans. With statements outlined in previous reports, there is general concurrence. The concepts which seem to be most pertinent in the development of the present plan are as follows:
>
> 1. Facility needs have been planned for a student body of 15,000 students. Such facilities include academic, administrative, social, athletic, recreational, and living accommodations.
>
> 2. All buildings are to be of a permanent, rather than temporary, construction, with the understanding that flexible and temporary uses be permitted within the buildings. The placement of permanent buildings will involve the moving and eventual elimination of these existing temporary buildings.
>
> 3. The Campus Plan anticipates construction in such stages that in each point in the development, the campus will appear complete to the point reached and will function and look well.
>
> 4. Buildings have been located with the view to maintaining desirable working relationships between departments. Their location is such as to make possible the expansion of building groups within their respective areas. The design of buildings and land areas are to be in harmonious unity with the materials of buildings, walks, courts, plantings, and parking areas.
>
> 5. The buildings are arranged in a series of courts, each having an open relationship to those adjoining, so as to provide a freedom of pedestrian movement from one court area to another. Standing in such a court, it is anticipated the visitor will be pleasantly surrounded by buildings which frame a complete view, the whole being developed against the backdrop of the mountains.

6. The plan contemplates four major access roads to the campus and one secondary access. The major entrances are from 12th North at the west of the campus, from 17th North at the northwest corner of the campus, from 9th East at the east of the campus, and from 7th, 8th, and 9th East at the south of the campus. The secondary access is at 2nd East and 8th North. These campus entrances connect to the principal highways of Provo City and Utah County. The entrance designs are to be such as to eliminate existing road hazards.

7. The major roadways are to relate not only to the City and County streets in the immediate vicinity, but likewise are to have a direct connection to the interstate limited access highway proposed by the State.

8. The campus roadways and parking areas have been laid out to accomplish the following objectives:

A. A perimeter loop road connecting the major entrances will permit movement around the campus offering a minimum of conflict with pedestrian traffic. Where it becomes necessary for student pedestrian traffic to cross the peripheral road, underpasses and overpasses are to be provided. Vehicular traffic across the academic portion of the campus will be eliminated.

B. Automobile parking areas for students who live on campus will be provided in connection with the housing facilities. Accommodations for students who live off campus and must drive to school, together with the parking accommodations for visitors and business vehicles, will be provided in a series of parking spaces fed directly from the peripheral road. Parking for faculty and staff members will be provided adjacent to buildings insofar as this is possible. Roadways within the campus area will provide suitable access to staff and visitor parking, service and supply, but will not accommodate other types of vehicular traffic. It is assumed that parking accommodations will ultimately be for 5,000 automobiles in the vicinity of the academic portion of the campus. This space, together with the parking areas in housing units, in the vicinity of the Fieldhouse, and elsewhere, should accommodate the needs of the student body and community groups attending major campus functions.

9. In previous studies, accommodations for academic, athletic, and living facilities were conceived as extending northward in three relatively parallel lines of development. The only exception to this was the approval of the location of the Men's Dormitories immediately north of the recreational playfields. With the necessity of setting the limit at some point to the campus expansion, it has been thought advisable to carry the student living accommodations around the northern campus extremity extending, where necessary, beyond 1700 North, establishing thus a northward limit to the campus developments.

10. Recognizing the necessity for building service areas situated in a position that will permit free access from the outside, and with least interference with on-campus traffic, these service areas have been located adjacent to the peripheral road and in a position that will give ready access to the campus, but not conflict undesirably with academic or housing areas.

11. Recognition is given areas which are geographically separated from the main campus. The specific development of these will constitute individual planning problems. Consideration has been given, however, to the extent to which City and County traffic may affect or be affected by these units and particularly to the connection between such areas and the central campus.

12. It is anticipated that the lower campus academic buildings will ultimately need to be abandoned. Until that time, however, it is recognized that it will be necessary to use the floor space there available for certain academic departments. It is proposed that the buildings be kept in repair and receive proper care and protection, but that no major expenditures be made thereon.

13. Recognition is given to the fact that a master plan, no matter how conscientiously studied, cannot foresee all of the changes in circumstances to which an institution may be subjected in the future. Even the near future is uncertain. It is therefore anticipated that the planning process will be continued by an active unit of the institution's staff with periodic reviews of the total plans to be undertaken at future dates as the needs become evident.

Physical Facilities and Educational Objectives

When it was determined that the university was to be developed into a major university, a number of things immediately became necessary. Of course, many questions pertaining to the academic side of the university had to be determined—such decisions as colleges to be established, courses to be offered, both on the graduate and undergraduate level, and additional faculty and staff. However, of all of the problems that had to be considered, certainly the need for additional physical plant was not the least. To get adequate buildings and other physical facilities in time to serve a rapidly expanding student body required quick, decisive action. The following are some of the steps taken, not necessarily listed in the order in which they were done:

1. A committee of seven men was appointed by the President to prepare a written report on the physical needs of the University in order that it might care for an enrollment of 15,000 students. This committee was comprised of the following university personnel: director of Auxiliary Services, director of Campus Planning and Development, and superintendent of Physical Plant. Other members of the committee consisted of two private architects, a private landscape architect, and a private planning consultant. The report of this committee was made in August 1957, and has already been referred to in detail in this article.

2. The Department of Campus Planning and Development was abolished and its responsibilities were given to the Department of Physical Plant. A director of the Department of Physical Plant was employed in October 1957, and the Department was reorganized to put greater emphasis on planning and on construction.

3. A permanent Campus Planning Committee of five men was appointed by the President. (More will be said later about this Committee and the way it functions.)

4. A comprehensive "master plan," which had already been started, was quickly restudied, broadened in its scope, delineated, and presented to the President. This plan was approved by the Board of Trustees in November 1957.

5. A Planning Section in the Department of Physical Plant was established with a chief of planning in charge who is responsible to the director of Physical Plant for the supervision and administration of personnel assigned to the Planning Section. The chief of the Planning Section cooperates closely with the Construction Section and with the Maintenance and Operation Section. The Planning Section is specifically responsible for maintaining the Campus Master Plan, recording drawings, preparing plans and specifications for alterations and additions, planning for site development work, writing building programs, preliminary architectural studies, models, print reproduction, utility and planting plans. The Planning Section is generally responsible for architectural, landscape, and mechanical planning done in the Department of Physical Plant.

6. A Construction Section was established in the Department of Physical Plant with a construction engineer in charge, who is responsible to the director of Physical Plant for the supervision and administration of personnel and work assigned to the Construction Section. Specifically, the Construction Section is responsible for the review of plans and specifications prepared by other Department of Physical Plant personnel and by all professional architects and engineers doing work for the University. This includes seeing that all of the supervisors and foremen of the various shops in the Department of Physical Plant, and the other specialists in the Department of Physical Plant, review their particular sections of all plans and specifications. The construction engineer in charge of the Construction Section is responsible for combining all of these reviews into written reports which are given to the director of the Department of Physical Plant. These reports outline the findings and recommendations of those who have reviewed the plans. The Construction Section also is responsible for all architectural, mechanical, electrical, structural, and other technical inspections to be done on all major or assigned construction work done on the Brigham Young University Campus.

7. A determination of major construction projects that were to be given early consideration was made.

8. Project committees were formed to work with the Campus Planning Committee and with the Department of Physical Plant in the preparation of "Written Programs" for the guidance of the architects and engineers selected for the several projects. (More will be said about these committees and the written program later.)

9. A review of architectural and engineering firms by the Campus Planning Committee, and a recommendation to the President on architects, structural, mechanical, and electrical engineers for those projects to be started immediately were made.

10. A set of "Instructions to Architects and Engineers" was prepared by the staff of the Department of Physical Plant. These instructions were given to each firm of architects that had been selected, at the same time that the architects were given the "written programs" for their respective jobs. (More will be said later about these "Instructions to Architects and Engineers.")

11. Engineers were employed to plan the additions and extensions to all campus utilities. Major extensions had to be made to the high-temperature water distribution system, the sanitary sewer system, the culinary water system, and the electrical distribution system. In addition, an entirely new storm sewer system had to be planned.

12. Plans and specifications were prepared for the peripheral road around the main campus, for other streets, and for several parking lots.

13. Because much of this projected work was to be done in areas occupied by temporary buildings, it was necessary to prepare a very careful study to determine whether a temporary building could be removed entirely, and its occupants taken care of in

other buildings while the new facility was being prepared, or whether the temporary building would have to be moved to a new location where it could remain until no longer needed. As all facilities were and are heavily used, this was a difficult problem. Yet, by careful planning and excellent cooperation by everyone concerned, it has been done with a minimum of interference to the teaching schedule of the University.

14. Because much of the new construction was to be done in heavily used portions of the campus, it was necessary to give careful thought and planning with reference to where contract limit lines would be set. A system of fences and temporary construction roads was constructed in such a way that the University personnel would not interfere with the contractors and the contractors would be entirely fenced off from all normal University functions. This careful planning has paid off and has allowed a large construction program to go on in the heart of a very busy campus with almost no interruptions to normal University life.

15. In order to speed up the preparation of working drawings, as well as for other considerations, five firms of architects were awarded contracts. While none of these firms was connected in any way with another, it was necessary to associate them loosely together to insure a "harmonious whole" instead of a collection of unrelated buildings. The cooperation of the architects and the results obtained have been very satisfying. Each architect has been able to put his own ideas into his building, but by use of previously agreed upon materials and some standard details, the buildings, while maintaining their own characteristics and individualities, do harmonize very nicely. (This is where a written program on each building and a standard set of instructions and suggestions to each architect have paid off.)

The Church Building Committee and personnel of the University have prepared instructions to guide architectural firms in preparing plans for the university. It is not feasible to reproduce these instructions here, but the following comments will be sufficient to explain our requirements: As part of the planning process, each architect was, and is, required to submit his work to the university for review and criticisms at three principal stages: schematics, preliminary drawings, and working drawings. Each architect is required to submit schematic drawings in accordance with the owner's program requirements. During this preparation the architect is encouraged to make several studies of the problem in an effort to arrive at a solution satisfactory to himself and to the university. Frequent consultations by the architect with the university during this important phase of the work are essential. The architect's drawings may be single-lined if he desires, and elevations and perspectives at this stage are not required, but the architect is encouraged to make a sufficient study of the arrangement of building masses to depict the general architectural concept of the project. The architect is further required to show on the main floor plan a tabulation of space areas as shown in his schematics as compared with those shown in the owner's "Program Requirements." The architect is required to furnish five copies of the schematics to the university, accompanied by a letter of transmittal. He is advised in writing as to the required revisions or official approval. Until written approval is received, the architect is not authorized to proceed with the preliminary drawings.

After the architect has received approval by the university of his schematics he can proceed with his preliminary drawings. At this stage the architect prepares floor plans, elevations, and cross sections, as a further development of the approved schematics, and he does this in sufficient detail to show clearly the nature, size, and architectural concept of the project. He also prepares an outline specification in which the general type of materials and equipment for each trade classification is shown. In addition, the architect is required to submit a cost estimate and to include it on the last page of the outline specifications. He also includes on the main floor plan a tabulation of space areas shown on the preliminaries as compared with those previously shown on the approved schematics. In addition, he furnishes to the university one framed perspective, five bound copies of the outline specifications, and five copies of all drawings. He is required to poche [1] one set of plans. These preliminaries are accompanied by a letter of transmittal. The architect is advised in writing of any required revisions or approval. He is not authorized to proceed with working drawings until he has received written approval of his preliminary drawings.

After the architect has received approval from the university on his preliminary plans, he may proceed with the working drawings. He must prepare his working drawings and specifications in harmony with the approved preliminaries. He also must design structural features in accordance with the local building code or follow the recommendations of the Uniform Building Code of the Pacific Coast Conference, latest edition. The architect is instructed that the specifications should be so written that each trade classification may be bid separately and that open competitive bidding may be had on all items. He is asked not to type any two trade classifications on any one sheet. However, any one trade classification may be left out for subcontract proposals. He is required to confer with the university on instructions to bidders, form of proposal, performance and payment bond, form of contract payment, general conditions, and general scope of work. The architect is reminded to be especially careful during this stage in coordinating the structural, mechanical, and electrical designs with the architectural plans.

---

[1] In a plan, the blackening of areas that represent wall sections.

When the drawings and specifications are completed the architect submits to the university five sets for checking purposes, accompanied by a letter of transmittal. Marked check sets are returned to the architect for any necessary revisions. After the revisions have been made, the plans are returned to the university for a final review. When the plans have been approved, the time and place for opening the bids are determined, and the architect completes this phase of his specifications. The specifications are bound, and the project is ready to be put out for bids.

The Church of Jesus Christ of Latter-day Saints maintains its church offices in Salt Lake City. All Brigham Young University plans and specifications must be checked and approved by the Church Building Committee, as well as by the university staff, at all stages of planning. When a project has been approved by the Executive Committee and by the Board of Trustees, it is presented to the Church Committee on Expenditures by the Church Building Committee. It is here that funds are appropriated for the project.

Since November 1957, when the last master plan was approved, the following major accomplishments have been realized: 6 buildings, totaling 242,183 square feet, have been planned, constructed, and occupied; 2 more, totaling 305,747 square feet, have been planned and will be ready for occupancy in July 1961; 4 buildings, totaling 944,490 square feet, have been authorized and construction will begin in the spring of 1961; 1 building of 80,000 square feet is ready for bidding, but funds have not been authorized. This is a total of 13 projects totaling 1,572,420 square feet. In addition, the roads and underground utilities that have been completed will serve adequately a continuing building program for several years.

Campus Planning Committee

The Campus Planning Committee consists of five men. This committee is advisory only and makes all of its recommendations to the president. Its membership is comprised of the Director of Auxiliary Services (who had been chairman of the previously mentioned "1957 Planning Committee"); the Dean of the College of Physical and Engineering Sciences; and the Chairman of the Department of Industrial Education; a professor of physics; and the Director of the Department of Physical Plant, who is chairman of the committee. The committee reviews all plans for any major campus development. Its members interview and recommend architects and engineers for all projects requiring professional services. The committee meets at 1:30 p.m. on each Wednesday and is available for call meetings. Deans, directors, and department chairmen meet with the committee to discuss their building problems. Through this system of discussions and reviews, many important decisions are resolved, and committee members have become very familiar with the space requirements of the university. The Campus Planning Committee does not concern itself with the details of everyday plant operation and maintenance and with the minor physical plant changes which result. Neither does the committee exercise administrative control over any phase of the many activities carried on by the university. The Campus Planning Committee reviews building programs and meets with the President and his Administrative Council to discuss them. The committee reviews all plans submitted by architects and engineers and when satisfied with the plans, recommends to the President that they be accepted. The committee also reviews and makes suggestions on master plan revisions and changes, and looks over other plans of major projects that are prepared by the Department of Physical Plant. Composed of men that the president, faculty, and staff have confidence in, the committee has played, and is playing, an important role in the development of the campus.

Project Committees

Individual project committees are also very important and necessary in the planning of major buildings. These committees are not to be confused with the Campus Planning Committee. A building committee of from five to seven persons is appointed for each building that is to be planned, but the Campus Planning Committee works with them all. As an example, when the Fine Arts Building was to be planned, a Fine Arts Committee was appointed from the Fine Arts staff. This committee, working with the Campus Planning Committee and with the planning section of the Department of Physical Plant, determined and assembled the lists of items required by the Fine Arts staff, and by the Department of Physical Plant, for that particular building into a written document entitled "Program Requirements for the Fine Arts Center." Project committees are consulted when discussing the selection of architects for their particular building, but the eventual selection rests with the Campus Planning Committee, with the president, and with the Church Building Committee, who must approve all recommendations for architects made by the Campus Planning Committee.

Once the architect starts to work, the project committee works closely with the Campus Planning Committee and with the architect through the adoption of preliminary drawings. After that, the architect and his engineers work on final plans and the reviews and consultations are generally less with the project committee than with the Campus Planning Committee, and less with the Campus Planning Committee than with the staff of the Physical Plant Department. During the construction of the building, the project committee and others work closely with the University Purchasing Department in selecting furniture and equipment to be purchased and scheduled for delivery on or about the completion date of the building. As soon as the building is completed and occupied, the project committee for that particular building is dissolved.

Written Programs

When an architect is placed under contract to prepare plans and specifications for a building, it is of course necessary for the architect to find out all that he can of what the owner wants and how the building is to be used. The better this is done the better the building will serve its purpose. The success of the project, and the owner's satisfaction, may well be determined by how successful the transfer of need and intended use by the owner is made to the architect. There are various ways of working with the architect during the important early planning stages. A method which too often is used is to have the architect talk to a score of people, making notes and asking questions until he begins to "get the picture." Then he prepares a plan and a pretty picture (perspective), beautifully delineated in color, and mounted in a frame. Armed with this, the architect then tries to sell his creation, pointing out all of its good points. The bad feature of this method is that the owner often ends up with a beautiful building, but one that is almost totally lacking in its attention to those details that will become so important starting with the day that the building is occupied. Of course, the conscientious architect will spend many days trying to procure sufficient information from his clients to prevent this from happening.

Another method is for the owner, where the talent is available, to produce sketches and drawings of what is wanted, to give to the architect. This method has a tendency to freeze thinking and to more or less force the architect into adopting predetermined forms and shapes. Also, such a method of communicating with the architect still does not solve the problem of making the architect aware of the owner's likes and dislikes of the many details that, taken together, either make a successful or an unsuccessful building. However, sketches and drawings used to supplement a written program do have merit.

Another method is for the owner, working through proper committees, to prepare a "written program." This program can, and often is, prepared before the architect is selected. Here attention should not be given so much to the shape or form that the building will take, but more to the size, use, special requirements, and special features desired in the various components that, taken together, will form the building. This means that those working on such a program must know how they intend to use the building and for what purpose. Having to prepare a detailed written program, in advance of plans, has a good effect on the future users of the building. In order to get approval of their proposals they must have clearly in mind how they intend to use their future facilities. This organization of thoughts and procedures makes for better teaching and research.

At Brigham Young University a "written program" is prepared on every building project. We believe in this method of communicating ideas to the architect and so far we have not discovered an architect who does not like the method. (We supplement the "written program" which is prepared specifically for each building by a set of "General Instructions to Architects and Engineers." These general instructions contain information that we want the architect to have on items that are common to all buildings, as is discussed later.) When a written program has been prepared by the joint efforts of the project committee, the Campus Planning Committee, and the planning section of the Department of Physical Plant, it is discussed in detail with the president of the university and with his Administrative Council. It is here that policy questions are finally resolved and a university-wide acceptance of the project is obtained. After this meeting, or meetings, final changes and corrections are made and a sufficient number of copies of the written program are bound so that everyone interested may have one. When the architect is selected and is ready to work, he visits the university. At this time we sit down with him, go over all of the requirements, as listed in the written program, and discuss the general instructions with him. He visits the building site and is given a carefully prepared topographic map which not only gives the contours but also complete information on all utilities, including not only their location but their characteristics. After this, the architect and two members of the university staff may visit several schools with similar buildings. The architect, having the needs so clearly before him, is in a good position to know what he is looking for. Thus the trip is more pointed and meaningful than it would be if taken before he became acquainted with the requirements of the project upon which he will soon be working.

The written program is such an effective way of transmitting information to the architect that the following, taken from the "Program Requirements for the Fine Arts Center," is given in order to acquaint the reader with some of the details of programing. Because the written program prepared for the Fine Arts Center contained 140 pages, it is impossible to reproduce it all here, but perhaps a listing of the table of contents and a brief explanation of some of the items contained in the program will be sufficient to indicate the nature of the program itself. This work is entitled "Program Requirements for the Fine Arts Center, prepared by the Fine Arts Building Committee and the Department of Physical Plant of the Brigham Young University, January 1959." The introduction to the "Program Requirements" reads as follows:

> These program requirements are an outline of the needs to be met to adequately house the College of Fine Arts. A description of each room and facility with its importance to the curriculum is included. The College of Fine Arts, organized in 1945, includes the Department of Art, the Department of Music, and the Department of Speech and Dramatic Arts. At present, these departments conduct their work in fifteen different buildings from one end of the campus to the other. It has been obvious for a long time that the Brigham Young University needs more adequate facilities for the function of this College. The table of contents in the program lists the following:

I. Introduction
  A. Enrollment Chart
  B. Location of Building
II. Space Requirements
  A. Certification
  B. Summary and Estimated Costs
  C. Office of the Dean
  D. Department of Art
  E. Department of Music
  F. Department of Speech and Dramatic Arts
III. Utilization of Facilities (Summary)
  A. Department of Art
  B. Department of Music
  C. Department of Speech and Dramatic Arts
IV. General Considerations
  A. Materials of Construction
  B. Air Conditioning
  C. Acoustical Treatment
  D. Lighting
  E. Entrances and Stairways
  F. Elevators
  G. Audio Visual Aids

H. Mail Room
I. Restrooms
J. Utilities
    1. Heat
    2. Water
    3. Sewage
    4. Electricity
    5. Telephones
    6. Trash and Garbage
K. Custodial Services
L. Grounds
M. Fire and Safety

V. Description of Rooms and Facilities
    A. Office of the Dean
    B. Department of Art
    C. Department of Music
    D. Department of Speech

"II, A.—Certification," reads as follows:

> We hereby certify that we have compiled the following information concerning the space requirements in the Fine Arts Center, and that the utilization of each room and facility, based on present authorized courses and allowing for increases in sections, has been checked by us and is certified by us to be correct.

This certification was signed by the dean and the three department chairmen of the College of Fine Arts.

"II, B.—Summary and Estimated Cost," reads in part as follows:

> It is felt by the College of Fine Arts Building Committee that a structure with a total area of 232,188 square feet will be adequate to meet the needs of the College of Fine Arts when Brigham Young University enrolls approximately 15,000 students.

Then a summary of the breakdown of space was given as follows:

	Square feet
Dean's Office	790
Art Department	28, 750
Music Department	68, 429
Speech and Dramatic Arts Department	64, 563
Total Usable Area	162, 532
General Use Area (30% of Gross Area)	69, 656
Gross Area	232, 188

Next followed the breakdown of the estimated cost of the building, which included the number of square feet times the estimated cost per square foot, the architectural fees, the amount of money anticipated for site development, for outside utilities, for contingencies, and for furniture and equipment. The total of these items comprises the total estimated cost of the building. This is important because it then becomes the architect's responsibility to design the building to come within this budget—or to get the owner's permission to exceed the budget or to reduce the requirements.

The following single page taken from the "Space Requirements, Department of Art" will serve as an example of how all of the space requirements were arrived at for all of the departments in the College of Fine Arts:

Space Requirements, Continued
Department of Art

	Total students	*Space required*	*Total sq. ft.*
Graduate Laboratory (see Page 53, Facility No. A 16) 30 students @ 40 square feet	30	1, 200	1, 200
Photography Laboratory (see Page 54, Facility No. A 17) 30 students @ 40 square feet	30	1, 200	1, 200
TOTAL STUDENTS	627		
STUDIO-OFFICES			
14 Studio-Offices (see Page 55, Facility No. A 18)		150	2, 100
2 Receptionist's and Typists' Areas (see Page 56, Facility No. A 19)		150	300
Other rooms (4 total)			
Storage for permanent art collection (see Page 57, Facility No. A 20)		2, 400	2, 400
Shipping and Receiving for BYU and Visitors' Art Works (see Page 58, Facility No. A 21)		800	800
Display Corridor (see Page 59, Facility No. A 22)		3, 250	3, 250
General Storage and Locker Area (see Page 60, Facility No. A 23)		418	418
TOTAL USABLE AREA			28, 750
GENERAL USE AREA (30% OF GROSS AREA)			12, 320
Total			41, 070

Within each parenthesis there is a note to see a page and a facility number. This refers to the page and detailed description of each particular facility. For instance, on "page 49, facility number A 14," the following information is given concerning the 1,200 square feet needed for a Plastic Arts Equipment Laboratory. This page is included as an example of the detail which is provided for each facility required in the building.

Department of Art

Facility No. A 14

Plastic Arts Equipment Laboratory (1,200 square feet)

Equipment needed in room:

- 3 heavy work benches
- 10 heavy duty dollies, 2 by 3 feet, mounted on 3-inch rubber castors
- 10 15-gallon stoneware crocks
- 2 large mixers
- 1 small electrical cement mixer (110 volts)
- 2 large cabinets for the storage of tools and implements
- 1 large sink with faucets threaded for hose attachment
- 2 large sinks built out from the wall to allow usage from three sides with acid-resistant plumbing and hot and cold water
- Fluorescent and natural lighting
- Electrical outlets on all walls (110 volts)
- 4 electrical outlets (220 volts)
- 1 exhaust fan to remove clay dust from the air
- A variety of cabinets for the storage of glaze ingredients
- A center table 4 by 10 feet at which students seated on stools may work
- 10 stools
- 2 spray booths with exhaust fans
- 1 ball mill
- 2 sets of balances
- 2 spray guns with small air compressors
- 1 chalkboard (8 linear feet)
- Concrete floor
- Humidifying apparatus
- Metal racks and shelves
- Removable metal, perforated trays, to rest on the metal racks
- 1 large shuttle-type gas-fired kiln
- 3 medium-size electric kilns
- Cabinets with screened doors for the temporary storage of pieces awaiting firing, or awaiting removal after firing process
- 1 large exhaust fan to remove excess heat
- 1 large metal canopy over the kiln to catch and conduct to the outside direct heat from the kiln
- 1 small sink

Space utilization:

1961–62=80 percent

With student body of 15,000=100 percent

The following are examples of additional types of information given to the architect in the "written program" prepared for the Fine Arts Center: On the *mail room*, for instance, the program reads:

> There shall be a mail room associated with the custodial office where mail may be delivered to and sorted in individual boxes for departments and professors. This room shall be conveniently located from the service entrance where the mail will be delivered by truck. There shall be 150 post office type boxes opening onto a corridor.

Under *utilities*, the following information is given to the architect:

> Heat will be provided by the Central Heating Plant of the University, which uses a high-temperature water system. Water will arrive at the College of Fine Arts Center at approximately 307° F. A warm water heating system is preferred to steam or hot air within the building. Each room should be individually controlled pneumatically. A separate room shall be provided for the heat exchanger and associated mechanical equipment, without adding electrical terminals or transformers. This room shall be separate and apart from the building, or constructed in such a way that in the event of a high-temperature water line break, damage from steam or water would be confined to that area alone.

The foregoing will serve as an example of the type of information that is given to the architect in the "Written Program." By having such information at the very beginning of a project, the architect can start to work immediately. By not having to spend so much time in digging this information out for himself, the architect can spend more time on his schematic drawings and can, therefore, give the owner several different proposals to study and to choose from.

Instructions to Architects

The Department of Physical Plant at Brigham Young University has prepared a 116-page booklet entitled *Instructions to Architects and Engineers*, first prepared in January 1959, revised in July 1960, and again in January 1961. It is expected that it will be revised and added to from time to time as better methods are developed. It is impossible to go into the details here, but the following listing of the table of contents will indicate the type of general information that we want all architects to have before starting a project for the university:

TABLE OF CONTENTS

Instructions to Architects

Initial Site Survey and Report
Schematic Drawings
Preliminary Drawings
Working Drawings
Construction Period

- Recommended Forms
  - Architect's Request for Payment
  - Architect's Inspection Report

Recommended Specification Forms

- General Information
- Typical Index
- Typical Detail Specification
- Outline of Instructions to Bidders
- Outline of Form of Proposal
- Outline of Supplemental General Conditions
- Map of Campus
- Performance and Payment Bond
- Contract for Construction
- General Conditions
- Progress Estimate

Recommended Standards of Construction

- General Information
- High Temperature Water Distribution
- Electrical Power Distribution
- Utility Painting and Identification
- Fire and Safety Regulations
- Door Numbering
- Water Connection
- Sewer Connection
- Audio, Radio, and Video Equipment
- Telephones
- Clocks and Class Bells
- Sprinkler Systems
- Catch Basins and Gutters
- Trash and Garbage Removal
- Restrooms and Equipment
- Custodial Rooms
- Mailroom
- Materials of Construction
- Entrance Ways
- Stairways
- Drinking Fountains
- Lighting
- Air Conditioning
- Roofing and Flashing

Importance of Master Planning

Such a study as the planning committee's "1957 Report" is an absolute must at any school which proposes to develop a master plan or to engage in an orderly development program. It is thought that perhaps a list of the subjects discussed in the report might assist some school in making a similar study. The subjects discussed are as follows:

1. Scope of Project
2. Historical Background
3. Planning Organization
4. Recent Developments
5. Projection of Anticipated Growth
6. Planning Principles and Objectives
7. Comprehensive Campus Plan
   - A. Correlation with Provo City and Utah County
   - B. Land Acquisition
   - C. Campus Zoning
   - D. Determination of Needed Building Space
   - E. Vehicular and Pedestrian Circulation
   - F. Automobile Parking
   - G. Campus Landscaping
8. Physical Needs for Immediate Future
   - A. Progressive Land Acquisition
   - B. Proposed Capital Outlays
   - C. Removal of Temporary and Obsolete Buildings
   - D. Utilization of the Lower Campus
   - E. Roads and Automobile Parking
   - F. Pedestrian Circulation
   - G. Utilities Extension

There is a tendency sometimes on the part of a few school people to be a little less than enthusiastic about "master planning." It probably stems from a natural distrust of any man who keeps his head in the clouds and who seldom comes forth with a practical idea—a man too busy looking at the broad picture to be able to cope with the common everyday working details. Such a master planner is sometimes referred to as a dreamer. Some feel that a master plan or campus plan is likely to freeze thinking so that the development does not have the advantage of complete flexibility. Others will argue that such a plan is too expensive to make and to maintain. Still others think that a campus plan is followed only by those who made it and that a campus is the result of generations of planners and builders, all trying to develop their own ideas and not caring too much for their predecessors' opinions.

Many comprehensive plans are developed covering land that is yet to be acquired, resulting in making that land several times more expensive to purchase. Also, the campus plan is still a two-dimensional drawing, no matter how much colored pencil or water color is placed on its surface. Some school officials in key positions have never learned to understand a drawing. Because of this, some feel that a "master model" is superior to a "master plan." It is argued that because the master model is three-dimensional it is more easily understood by all and that changes may be made more easily on its surface. Another of the disadvantages of master planning is that it is practically impossible to find a planner with enough faith in the future to plan on a large enough scale. Many campus plans have been outgrown almost before the ink was dry. This would not be so bad if the plans were restudied and enlarged, but too often they are forgotten and new buildings are located for the convenience of the moment and not for the good of all over a long period.

The persons in charge of planning at Brigham Young University believe strongly in having a master plan and in keeping it up to date and in working order. They are sure that such a plan will help prevent snap judgment as to size and location of projects. They believe that if it is followed closely it will go a long way toward preventing the necessity of having to "leap-frog" engineering buildings over agricultural buildings and education buildings over athletic areas. This does not mean that the master plan needs to be inflexible. The master plan needs to be restudied, revised, and redrawn every few years at any institution whose physical plant is enjoying a normal development. In this way, the plan will always be fresh and workable, but the day-by-day detail work will be guided by years of collective thinking and planning.

It would be interesting to know how many beautifully and expensively delineated master plans have been prepared and never followed. The master plan should be on the wall of the college planner, or in the meeting room of the campus planning committee, and it should be made the basis of every discussion pertaining to the development of the physical plant. Preparing a comprehensive plan for the development of a new institution, or for the development of an old institution on a new site, is easy compared with developing one for an institution which has grown large without the benefit of long-range thinking. Even in the worst cases, however, it is not too late to start. Definite progress can be made in a very few years when the work is organized, and when it begins to follow a predetermined trend. As stated before, Brigham Young University believes strongly in this principle and is following a planned development of its campus.

Recommendations

Following are some of the points that we at Brigham Young University recommend for serious consideration by other colleges:

1. That a growing school should maintain a strong central planning office, possibly in its Department of Physical Plant. In any case, the planning office should be the center of all planning done on the campus.

2. That just as much care should be given to the selection of the structural, mechanical, and electrical engineers as to the architect.

3. That soil surveys and analyses should be made on all major jobs for the guidance of the architect and his structural engineer.

4. That the owner should investigate, and reserve the right to approve, any subcontractors proposed to be used by a general contractor.

5. That every supervisor and foreman in the Department of Physical Plant should be required to review both preliminary drawings and working drawings and specifications, and to make their suggestions and recommendations in writing for transmission to the architect. A check should be made to see that these suggestions are given careful consideration.

6. That the Campus Planning Committee should be advisory only, limit its activities to major projects, and not become involved in routine operational matters.

7. That a written program should be prepared on every major building project, and approved in principle, by everyone concerned, before the architect begins work.

8. That a master plan should be adopted and that someone, preferably someone in the central planning office, be given the responsibility for keeping it current and seeing that it is properly used.

9. That the owner should maintain adequate, competent building inspectors. These building inspectors should be on the job every hour that the contractor or his subcontractors are working.

Summary

In summary, it has taxed every facility of Brigham Young University to accept the students who have applied for admittance. First came the veterans, their wives, children, trailers, and automobiles. All of this was new to the university and caught everyone unaware. Then came temporary buildings and rapidly expanding facilities, such as roads, streets, and utilities. Now, instead of lessening, the problems are increasing. The married student and his household have not disappeared; each year there are more students than there were the previous year; and the expanding curriculums are requiring bigger, better equipped buildings.

Since 1951, Brigham Young University has experienced over a 100-percent increase in enrollment to become the largest university in the Intermountain area. The faculty has witnessed an even larger increase in numbers. The 5 colleges, 1 school, and 2 divisions previously comprising the university have become 11 colleges, 1 school, and 1 division. The 1960 first semester on-campus enrollment was 10,305, and it is expected that the enrollment will increase to 15,000 students when physical facilities are available.

All of this expansion demands new buildings to accommodate the operation, and since 1950 Brigham Young University has conducted one of the largest building programs in the Intermountain West. This construction program has consisted of academic and operational facilities, as well as housing for single men and women and housing for married students.

The present Brigham Young University main campus consists of approximately 500 acres, of which approximately 200 acres are intensively maintained. There are 2,065,251 square feet in permanent buildings, either existing or under construction, and 293,890 square feet in temporary buildings that will be replaced with permanent buildings. The university has just completed 10 busy years of its building program and now the school is in the process of starting its next construction program of 944,490 square feet which will begin in the spring of 1961.

In addition, plans are being made for continued development of walks, driveways, parking areas, utilities, campus lighting, and campus landscaping. In all of this expansion the university is following a scheme of planned development that should result in continued improvements. All walks, drives, and parking areas are constructed so that they will fit into the permanent scheme of things. At the present-day cost of construction, even the tearing up of a walk because of poor planning is hard to justify.

One of the interesting planning problems which arise is how to build permanent buildings on areas occupied by temporary structures. The temporary buildings are so heavily used that it is almost impossible to give up even one of them while a new building is under construction. To prevent such situations from exerting too much influence, and to serve as a guide in the orderly development of the campus, the university has developed a master plan, or comprehensive development plan. It was determined that the present plant should be adequate to serve an on-campus, regular daytime enrollment of 15,000 students. Knowing the history of many institutions, however, the planners developed the master plan in such a way that future expansion, beyond the present concept, may be made. This is being done by simply not building dormitories or other permanent structures in one area of the campus that is contiguous to the part of the campus being developed for the academic program. This cushion area will be used for lawns, parking, and recreation until the future dictates its ultimate use.

The master plan hangs on the wall of the physical plant conference room used by the Campus Planning Committee, and it is constantly referred to, studied, and analyzed. Suggestions for improvements are kept under file, and periodically the master plan is revised in order to keep it in step with the growing, expanding, and ever-changing university.

Chapter IV

AN URBAN INSTITUTION which has outgrown its campus site may either grow upward or intensify its use of space, or pick up and move out of town. Some urban institutions would not move out away from their constituencies even if they could. Their problems are unique. City traffic and parking space are among the least of their perplexities. Planners in other large city universities will find many of their own growth problems mirrored in the Saint Louis University case.

Expanding Saint Louis University

By

M. B. Martin, S.J.

Dean of Student Affairs, Saint Louis University

and

B. T. Schuerman, S.J.

Director of Campus Development, Saint Louis University

SAINT LOUIS UNIVERSITY is an independent, nonprofit corporation owned and operated by the Society of Jesus, or Jesuits, a Catholic order of religious men. As an independent educational corporation it is owned and operated by the president and board of trustees. While the corporation is itself independent, the members of the corporation are subject to the Jesuit superior, the Provincial of the Missouri Province, which presently comprises six Midwestern States. There is no admittance discrimination by race or creed, and 20 percent of the total student body is non-Catholic. (Committed only to Catholic doctrine and principles, the university is free to investigate and teach all areas of knowledge.) The university receives no regular subsidies from any group, religious or otherwise; it is totally dependent on its own resources, tuition, grants, and free-will offerings.

Founding and Early History

The university was founded in November 1818, 3 years before Missouri became a State. After 2 years of operation by its founder as an academy and 7 years by diocesan priests as a college, the college was given to the Jesuits who moved it to nearby Florissant for 2 years. In 1829 the school was relocated in new buildings erected at the edge of town on Ninth Street and Washington Avenue, where it remained for almost 70 years. When the college received its charter to operate as Saint Louis University in 1832, it was the first university charter granted west of the Mississippi River.

Beginnings of North Grand Campus—1867–1922

After the Civil War when it became evident that city development was again hemming in the institution, the university purchased in 1867 a 3¼-

acre tract in the country $2\frac{1}{2}$ miles west of Ninth Street at its present site at Grand and Lindell Boulevards. It was a brave and farsighted decision, but subsequent generations have criticized the administration for selling most of the original purchase and for not buying a larger tract. However, the documents indicate that the university simply had no more money, that full payment was not made until years later, and that it was 20 years before the site was occupied.

The first building on the new tract, the College Church, was begun in 1882. The college building, a large Gothic brick structure with 132,000 square feet of floor space and dramatically visible from its location on the brow of the Lindell rise, was completed and occupied in 1888. Grand Avenue immediately north of Lindell rapidly developed into a thriving commercial city—a second downtown. To the west of the university, the Lindell-West Pine area, was the heart of a plush residential district by 1890.

In the next 10 years three improved lots immediately adjoining the university grounds to the west and with a 100-foot frontage on both Pine and Lindell, were purchased. On this newly acquired property an auditorium and two buildings for a school of philosophy and divinity were constructed, with a total floor space of approximately 150,000 square feet. This was to be the total extent of the north campus for the next 25 years.

Acquisition of South Grand Campus, 1903

Blocked from further development on North Grand, the university made a momentous decision in 1903 when it acquired, by purchase, the Marion Sims-Beaumont Medical School located at Grand and Caroline Avenues—across Mill Creek Valley and the railroad tracks, 1 mile south of the north campus site. While this, too, was a fully developed residential area and offered little room for expansion, it was less pretentious than the midtown development. Five years later the same vigorous administration purchased a dental school in the same area and added it to the complex. Thus two individual campuses were created in congested areas and with no possibility of ever being joined. The two-campus decision was made irrevocable with the construction of a new medical school building and a dental school building on the same south site in 1921.

Large additions were constructed in 1927 and in 1947. In 1931 the Firmin Desloge Teaching Hospital was built on Grand Avenue opposite the medical complex. With this addition the south campus was now more impressive than the older north campus.

Lindell Frontage—1922-31 and School of Commerce and Finance—1931

After World War I the fashionable Grand and Lindell area underwent a dramatic change. Grand Avenue to the north was rebuilt upward with office buildings, shops, and five large theaters. The change on Lindell, west of Grand, was more phenomenal. Within a decade all the mansions, save one, for three blocks on the north side of Lindell Boulevard were replaced by two mammoth Masonic temples, two 14-story hotels, two 18-story apartment buildings, 2 fashionable clubs, and other structures constituting a frontage unmatched in the city today. But only the north side of Lindell, across from the university, was changed. In 1922 the Jesuit Missouri Province and the university began a system of strategic buying on Lindell, and by 1926 had acquired a 320-foot frontage of mansions immediately west of existing university holdings. At the western end of this tract the first academic building on the north campus to be constructed since 1904, Davis-Shaughnessy Hall, the School of Commerce and Finance, was completed in 1931.

Expansion for Athletics—1920-30

On Oakland Avenue facing Forest Park, 2 miles to the southwest, a large tract was acquired in 1920. Here were built the Walsh Memorial Stadium, with adequate adjoining parking, and the Backer Memorial Saint Louis University High School. The high school, separately incorporated, stands and flourishes today. Though the field had earlier been used for football practice, the first game in the new stadium was played in 1930. More expansion for athletics took place on the north campus where just enough property was purchased on the south side of West Pine to build the gymnasium in 1926. In the thirties only one piece of property was purchased on the North Grand campus, an old mansion to house athletes.

Depression, Economic and Environmental—1929-40

Then came the crash and the depression. The gloom that settled over the Nation forced the city to recognize the extent of the decay that had been in progress for years. It began before World War I when cheap Southern labor was imported to St. Louis and crowded into dilapidated dwellings along the river front, gradually spreading westward. Mill Creek Valley, lying roughly parallel to Lindell Boulevard about one-half mile to the south, was filled with smoke-belching trains and switch engines. Heavy industry poured smoke and soot into the city from both banks of nearby Mill Creek Valley. Every breath of air carried its cargo of soot and grime. With not a cloud in the sky it was not uncommon for the street lights to go on at high noon. Those who could afford it fled to the suburbs, and the proud old homes fell into the ownership of landlords who crowded three or four families into space intended for one while allowing the buildings to lapse into a lamentable state of disrepair. With grim and inexorable steadiness the blight and decay rolled westward to Grand Avenue. By 1940 it was just across the street from the campus on the east side of Grand Avenue. There it stopped dead. To the north the commercial and amusement development of Grand Avenue proved a firm barrier; south of Lindell the university and industry beyond stopped the tide. By 1940 the city had finally begun to solve the smoke problem but it seemed that the slums had come to stay.

World War II Years

In September after Pearl Harbor the institution dedicated to the education of men admitted only a few wheelchair cases, 4-F's, and women—more women than the university had ever seen before. In October 1942 the university began the era of "crash and baling wire." Hundreds of electrical technicians and language area students from various army training programs were assigned to the university to be trained, housed 24 hours a day, and fed. With dormitory experience and space limited to that gained with football players in the remains of an old mansion and a garage, the university entered into crash emergency operations which were to continue for years. Shops and classrooms became laboratories; basements, attics, old houses, and a gymnasium were converted to dormitories; a lounge became a cafeteria. It was a hectic period but every emergency was met with a crash program held together with baling wire improvisations. It worked remarkably well.

Acquisition and Construction—1944-47

One man with courage is a majority. The vision and energy of a new president inaugurated a new era for the university. Rev. Patrick J. Holloran, S.J., declared an emergency, and emergency it was. On Olive Street, two blocks to the north and in the shadow of the tallest building in the city, the Wagner Mortuary was purchased and converted into the Institute of Technology and Engineering in September 1944.

In the last 2 weeks of the same month houses on the corner of Spring and West Pine were bought and razed for construction of a classroom and cafeteria building, and work continued speedily until DesPeres Hall was occupied at the opening of the second semester. Other properties were purchased on West Pine between Grand and Spring, including the much desired Cupples Home, a monumental mansion adjoining university property, now called Chouteau House and used as a student activities center. With the $2 million realized from a fund campaign, Clemens Hall, a residence hall for men, was built in 1946, an addition to the medical school was constructed, and the dental school was renovated in 1947. With the G.I. bulge, seven quonset-hut classrooms were moved into the blacktop quadrangle adjoining the original north campus building; several more old houses were converted to classrooms; and instruction ground on from 8 a.m. to 10 p.m., 6 days a week.

Parks College of Aeronautical Technology, 1946

At the height of the bulge in August 1946, the university added a third complete campus 8 miles away. The famous Parks Air College at Parks Airport, near Belleville, Ill., was turned over to the university, by Oliver Lafayette Parks. It included classrooms, laboratories, shops, dormitories, cafeteria, hangars, and a flying field. And so it went on, with every new crisis squarely met by new inprovisations.

Football and Radio Station WEW

By the end of the forties, when crisis had assumed a status of normalcy, the administration paused to indulge in an agonizing reappraisal of the university and to steal a glance at the future. Some things looked encouraging; others were disturbing, especially football and radio station, WEW.

Post-war big-time football seemed to be an economic and academic failure. After pondering the enormous annual financial deficit and the undetermined academic incubus, the administration decided in 1950 to discontinue football. Walsh Stadium was sold for commercial redevelopment after several years of rental for athletic and amusement events.

Radio station WEW, begun shortly after World War I, was the second commercial radio station in the Nation. Though it was the pride of the university, it required constant subsidies. In 1947 it seemed that the remedy was an adjoining frequency modulation (FM) radio transmitter, and a 550-foot tower was constructed on the newly acquired Cupples property. When this proved to be financially unsound after a few years, the FM radio was discontinued. WEW was sold.

Property Acquisitions—A Plan Emerges, 1950–54

By 1950, the Missouri Province had declared its intention to relocate its school of philosophy on a 3-acre site at West Pine and Spring and then to make available by sale to the university the two large buildings in the original university group and several adjoining lots to the west. The plan now becomes clear; the university would eventually try to acquire all of the property in the two blocks from Grand to Spring and from Lindell to Laclede, a total of approximately 20 acres. Significant progress toward this goal was achieved when the university purchased the one remaining private home on Lindell in 1952, and in 1955 the corner property at Spring and Lindell, after fire destroyed the church and the adjoining building. Finally, 88 years after the original purchase, the university owned all the Lindell frontage from Grand to Spring.

Late in 1953 the Missouri Province completed its group of buildings on West Pine west of Spring after having agreed to sell its holdings in the "university block" to the university in March 1950. After some remodeling DeSmet Hall was converted into classrooms and private faculty offices, a luxury never anticipated. Verhaegen Hall continued to be a residence for Jesuit faculty and graduate students. The following summer saw the razing of the emergency quonset huts and of the masonry cloister wall along Pine. Grass and landscaping (almost an acre of it!) replaced asphalt in the quadrangle to make the surrounding old buildings more attractive than even the original builders had planned.

Throughout this period the university kept a weather eye on the slums directly east of the campus but decided to make no unnecessary purchases in this area. There had been much talk about slum clearance, but several bond issues for the purpose had been overwhelmingly defeated. Most of the houses in this crime-ridden area were in a state of complete disrepair, verging on collapse. The university used to warn its students not to go east of Grand at night, but by 1950 it was no longer necessary to post warnings. The neighborhood east of Grand spoke for itself. Eventually a redevelopment program would become an actuality, and the university had to be ready with plans when it came about.

The First Master Plan on Paper—1951–52

Thomas Edison once said, "Everything comes to the man who hustles while he waits." The university realized that development east of Grand had to wait and that any interim expansion must take place west of Grand. A campus planning committee was formed, unofficially at first, but soon as a regular standing committee, to study the campus in general and plan for future development; acquisitions of property over the past 30 years had shown that previous administrations had laid the groundwork for campus development whenever opportunity had permitted.

After a year of committee planning, an architect was engaged in 1952 to make the first master plan for future campus development. Subsequent study revealed that the plan had its deficiencies, but it was a very important effort because it focused attention on the problems of future campus development.

Walsh Hall, 1954

At this time an additional residence hall for men became urgent and it was decided to put the new structure near the first men's dormitory. With an HHFA loan, Walsh Hall was completed in 1954 in accordance with the 1952 master plan.

Housing for Women—1949-54

In the summer of 1949 a small hotel on Grand, directly across from the original university building, was purchased and converted into a dormitory for 60 girls. Though it was not up to any modern standards, the building was filled in September and many more women were seeking admission. In 1954 with HHFA financing, the university began construction of a women's residence hall on West Pine between Vandeventer and Spring, to accommodate 290 students.

Revision of the Master Plan, 1955

A campus should serve the total needs of the university not only for the present but for the future. What are the needs of the university at the present and what will they be in the future? These questions were seriously asked by 1952 and a general university survey was inaugurated. The survey was begun as an academic assessment. With a total enrollment of approximately 8,000 at that time, including 3,100 full-time day students on the north campus, what would be the needs of the university in 1960, 1970, and beyond? After careful study of population figures for the St. Louis metropolitan area and the Nation, grade and high school enrollments, and college enrollment trends, the various schools and departments within the schools were asked to project their future enrollments, faculty requirements, and need of instructional facilities. After endless meetings, estimates, evaluations, and final coordination, the university survey was completed in 1955. The future needs, both in terms of faculty and instructional facilities, were staggering, but they did give a basis for projecting the future.

On the basis of the general university survey another campus development plan was drawn up by the committee with the help of another architect. While the plan was the best that could be developed at the time, it gradually appeared to be unrealistic because by it, all of the academic development was confined to the property west of Grand. The city redevelopment authority still had made no definite statement about slum clearance east of Grand. However, the plan was valuable inasmuch as everyone was again required to commit to writing his solution to the various problems connected with the future campus.

Pius XII Memorial Library—1950-59

Everyone agreed that one need was so urgent that further postponement was impossible—a library had to be built at once. The university central library for the north campus was still located in Dubourg Hall, where it had been ever since 1888. The building was far from fireproof, facilities were grossly inadequate, and the 400,000 volumes in the four libraries and in attics, basements, and storerooms, were in constant danger of fire. Destruction of the library would almost destroy the university because it represented a collection of books that had been carefully selected for 140 years. Many valuable tomes had been brought from Europe by the early founders of the university, and the general collection could never be replaced.

A drive for funds to raise the $4 million required for the library construction was begun in 1950. Although not all of the necessary money was yet in sight, it was decided in the spring of 1957 that the vital project could wait no longer. When the library was opened in the spring of 1959, it proved the value of careful planning for the present and future. Two years of operation have not altered the original judgment that it is one of the best-planned university libraries in the Nation. It is a completely open-stack library with shelf capacity for over a million books and study seating for over 1,500 students, in a completely modern structure which nevertheless blends in remarkably well with surrounding modified French Gothic architecture.

In 1950, before the construction of the Pius XII Memorial Library was begun, Pope Pius XII granted to Saint Louis University the amazing and exclusive privilege of microfilming the complete manuscript collection of the Vatican Library. Financed by the Knights of Columbus, the university microfilmed more than 11 million pages of the priceless manuscripts as well as many of the rare books in the Vatican. It is an interesting observation that scholars going to Rome to consult the Vatican documents today actually use a copy of the Saint Louis University microfilms rather than the documents themselves. With the numerous other microfilms of rare book documents from Rome, Spain, Germany, France, and America, especially from Mexico, the university has probably the world's most valuable scholarly microfilm collection, which occupies a relatively small part of the magnificent structure dedicated to the same scholarly Pope.

Parking Lots

As desirable property becomes available in the area west of Grand, it is being purchased and converted into much-needed parking lots. This is only a temporary and not entirely satisfactory solution to the parking problem; it is nevertheless a helpful interim measure which makes it economically feasible to acquire property for future development. On the north campus the university furnishes approximately 400 free parking spaces for faculty and staff, and about 350 student parking spaces in three lots equipped with coin-operated automatic parking gates. This income contributes to the upkeep of the lots and the partial amortization of the cost and improvement of properties purchased.

Surveys and Utilities—1950–60

One of the most serious problems facing the university is the evaluation of its present buildings and their ultimate integration into the campus of the future. Many of the older structures do not meet present building codes and fire-safety standards, and are costly to maintain. Nearly every building on the north campus has its own heating plant. Partial surveys were made as early as 1950 and a second study was undertaken several years later. Since these surveys still left some complex questions unanswered, an engineering firm was employed to make a thorough study of the structural soundness and anticipated future useful life of each building, its mechanical equipment, electrical services, etc. The study concluded with the recommendation of a utilities plant which would distribute all services, including heating, air conditioning, communications, electricity, and maintenance, and connect all buildings, including future structures east of Grand, with a system of service tunnels or pipe trenches.

Urban Redevelopment, 1955

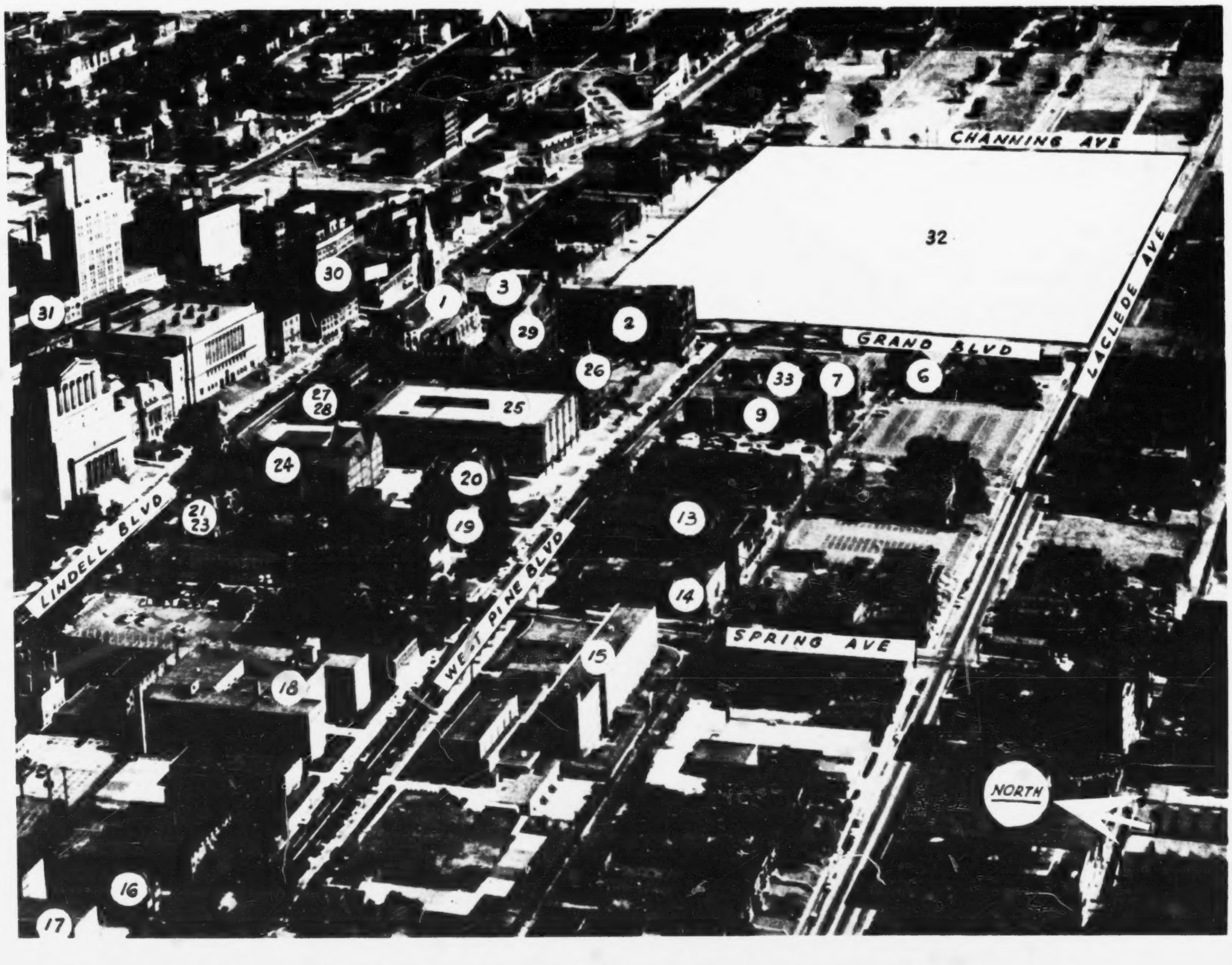
The university's watchful administration had long been confident that the area east of Grand would eventually be the site of a Federal and/or local program of slum clearance and redevelopment. In 1955 the city of St. Louis offered the voters a bond issue which included provisions for highways, necessary city facilities, and the redevelopment of the Mill Creek area directly east of the campus, across Grand Avenue. This bond issue was overwhelmingly passed and the university became definitely interested in the Mill Creek redevelopment.

A Plan for Urban Redevelopment—University Participation

In March 1958 the redevelopment authority for the Mill Creek Valley presented a plan for the redevelopment of 470 acres through the Board of Aldermen of the city of St. Louis. The plan which was approved by the aldermen designated 22½ acres east of Grand and adjoining the university for "public and semi-public use" with alternate uses designated as mostly residential and partly commercial. The plan recognized that the university intended to submit a proposal for the redevelopment of a part of the Mill Creek area, and the plan permitted such use, but this was in no sense a designation exclusively for Saint Louis University. After the plan was approved, and before any proposal by the university was acted upon by the land clearance authority, the authority publicly advertised for specific proposals for the development of the area. The university, in response to the advertisement, submitted its bid. No other developer submitted a bid, and it was only after this advertisement and a failure to receive any other proposals that the authority agreed to sell the land to the university.

Appraisal and Purchase Agreement

The price to be paid for the land was arrived at in the same way as for all developments in the Mill Creek area. Professional appraisers were retained by the authority to establish the fair market value for this plot and all others. The university agreed to pay the established price of $535,800 and committed itself to a construction



Aerial view of Saint Louis University, North Campus, looking east showing congested urban location and newly acquired space to the east of the present campus in a city redevelopment project area. Buildings identified by number are as follows (1 through 32):

1, Saint Francis Xavier Church; 2, DuBourg Hall; 3, Champlin Hall; 6, Sodality Hall; 7, Walsh Hall; 9, Clemens Hall; 13, Gymnasium; 14, DesPeres Hall; 15, Fusz Memorial; 16, Husslein Hall; 17, Marguerite Hall; 18, Saint Francis Xavier High School; 19, Saint John Cantius Seminary; 20, Chouteau House; 21, Campion Hall; 23, Canisus; 24, Davis-Shaughnessy Hall; 25, Pius XII Memorial Library; 26, DeSmet Hall; 27, Auditorium; 28, School of Law; 29, Verhaegen Hall; 30, Rogers Hall; 31, Rueppel Hall; 32, New Campus East of Grand Boulevard.

program which will cost between $7 and $8 million. Among the proposed buildings to be constructed on the Mill Creek property are an engineering building, a chemistry and physics building, a college union building, and classroom buildings, together with a playing field and a parking lot. The program blends perfectly with the city's master plan, which was considered excellent development of the Mill Creek Valley. The city and redevelopment authority accepted the university's bid and commitment for the 22½ acres of the Mill Creek Valley. (See p. 41)

Lawsuit To Prevent Purchase

Then came the roadblock. Three local citizens, with the support of an organization known as the Protestants and Other Americans United for the Separation of Church and State (POAU), filed an injunction against the city of St. Louis, the land clearance authority, and the university to prevent the sale of this property to the university on the claim that it violates the constitutional separation of church and State. Many of the city's Protestants, Catholics, and Jews rallied to the university's support, offered legal services, and joined with the university in this suit as *amici curiae*. In the summer of 1960 the district court gave a judgment later affirmed by the Missouri State Supreme Court wholly in support of the university's acquisition of the property.

Women's Housing, 1960

Planners will do well to keep one hand on the ripcord. The women's residence hall, which was occupied in 1956, was already filled to capacity in 1957. In 1959 the university submitted an application to HHFA for a loan to be used in the construction of an addition to Marguerite Hall to house 280 girls. In November of 1959 we were informed that HHFA was temporarily out of funds. The almost frantic search for a more immediate solution was continued until months of negotiation ended in the university's purchase of the Pick-Melbourne Hotel on June 23, 1960, for use as a women's residence hall. A 15-story building with approximately 350 rooms and desirable facilities, the hotel was ideally located at Grand and Lindell, just across the street from the College Church. After almost total remodeling of the basement and the first floor, the hotel has been converted into what is one of the finest women's residence halls on any campus. This has made a radical and most fortunate change in our general campus planning.

Housing for Men, 1960

At the present time there is again an urgent need for more men's housing, and an addition is being planned to connect the two existing men's residences. Future planners may not agree to the wisdom of another residence hall in the same location, but the addition seems advisable in order to make the existing buildings into an administrative and functional unit, and to correct some of the deficiencies in the existing structures.

South Campus Planning

The university has three campuses, but the main attention in this chapter has been devoted to the north campus. Parks College is practically ignored because it is not in a congested city district. The South Grand campus also required considerable attention in the general planning. The present medical school was originally built in 1921. Units were added in 1927 and 1947. Adjacent to the medical school is the school of dentistry built in 1922. Across Grand from the medical school is Firmin Desloge Hospital built in 1931. Directly south of Desloge Hospital is the Cardinal Glennon Memorial Hospital for Children, erected in 1954. This teaching hospital is owned by the Archdiocese of St. Louis, operated by the Sisters of Saint Mary, and staffed by the medical school of the university. Additional facilities in this complex were urgently needed, but again the university had no property in the area and real estate was very difficult to acquire. In 1958 a 2-acre city block adjoining Desloge Hospital to the north and originally occupied by an armory, was acquired from the city of St. Louis. With a substantial donation and matching Hill-Burton funds, the David P. Wohl Memorial Mental Health Institute was begun in 1960.

Much needed on the south campus are a residence hall for medical and dental students and a nurses' home. In addition, the medical and dental schools have plans for additional research and instructional facilities. Parking on the south campus is critical. As St. Louis streetcars were gradually being replaced by buses, the university became interested in the streetcar storage and material yards immediately west of Cardinal Glennon Memorial Hospital and adjoining the south campus. Years of vigilance and months of negotiation finally terminated at the end of 1960 in the purchase of the 7½-acre tract by the university. With that transaction it has finally become possible to make headway on a planned development of the south campus.

150th Anniversary Development Campaign

The university survey published in 1957 showed that if the university were to discharge its obligations to the community and the Nation it would have to be prepared to increase its enrollment from 8,000 to 16,000 students by 1970, with the full-time enrollment on the north campus increasing from 3,200 to 7,000. The minimum essential needs in the expansion of faculty, instructional facilities, and capital improvements were staggering. Even after eliminating desirable but nonessential items, the "absolute minimum" financial requirements added up to approximately $50 million. With a less vigorous administration the survey could have ended there.

No one is a good judge in his own case. Hence, the university employed an organization to make a survey of its reasonable fundraising potentialities and expectations. The survey, together with the opinion of the members of the president's council, a group of 100 of the most influential citizens of the St. Louis area, indicated that the goal of $46 million by 1968, the University Sesquicentennial, was reasonable, and that the campaign should be divided into two sections.

The academic survey indicated that it was absolutely essential to expend $18 million for capital improvements and faculty salaries by 1963; $11 million should be devoted to capital improvements and $7 million for improving faculty salaries and other operational needs. This amount became the goal of the development endeavor for the first 5-year period beginning in 1959.

The university had some serious handicaps. For decades it had been extremely conservative; its presidents had usually been former professors of philosophy or divinity who were inexperienced if not unconcerned with public and civic life. The university was not a part of the community and many a cab driver had to inquire about its location. It was not until 1944 that the president began to participate in the civic life of the community to any notable degree.

Ever since its existence on Grand and Lindell, the university had been too obviously associated with, and nearly dominated by, its adjoining schools of philosophy and divinity. The school of divinity was moved to Saint Marys, Kansas, in 1931, and the school of philosophy was relocated in new buildings adjacent to the university campus in 1954.

The university had little experience in fundraising. For a long period the total gifts to the university amounted to no more than a few thousand dollars a year. The situation was greatly improved in 1944–45 when a fund campaign realized approximately $[illegible] million.

In 1950 the Living Endowment Program was begun. Its goal was to attract alumni and friends into making an annual gift to be used for faculty salaries and other instructional expenses. The program has gradually developed into a substantial annual contribution.

The university also had some valuable assets for fundraising. It enjoyed a good academic reputation and was respected for its moderately progressive programs and sound judgment. A large percentage of the leading citizens of the metropolitan area were alumni. Many of the civic leaders, including the mayor, a number of aldermen and judges, were graduates of the university. A high percentage of local physicians, dentists, lawyers, and professional men had received their training there. Above all, the university had an alert and progressive administration headed by an exceptionally capable president.

In college basketball circles it is an axiom that if you want to win basketball games and do not have a tall man, the thing to do is get a tall man. In fundraising the essential and key figure is the president, and Saint Louis University had a "tall" president in Rev. Paul C. Reinert, S.J. He was fundamentally an educator and scholar when he became president in 1948. A good speaker, a forward-looking administrator with a friendly and easy personality, a broad range of interests, and amazing stamina, his qualities were immediately recognized in academic and civic circles. He rapidly became a member of every pertinent civic group and held office or board membership in every important national academic organization that time and abundant energy would permit him to accept. The university has become identified with metropolitan interests and few important civic ventures are undertaken without the support of the university and its president—a far cry from 20 years earlier. This is the magic ingredient that makes fundraising possible: the university has become an integral part of the community.

Ten years of experience have been of immense value. The library fundraising program was often slow and discouraging when begun in 1950, but met with eventual success. This experience demonstrated that the university cannot afford to have its president spend all his time in the routine administration of the university. While it is the cruelest of tortures to divorce a capable and prominent educator from academic pursuits and equip him with a tin cup for fundraising, in a multi-million dollar campaign the university cannot send a substitute. It must be the university personality, the president who devotes a great part of his time and all of his stature to this essential activity. The president needs the assistance of a development and public relations staff, but the all-important ingredients are the vitality and conviction of the president who can demonstrate to civic leaders that the university is performing a service which is of vital importance and interest to them.

With the support of hundreds of civic groups and alumni units in thousands of meetings, the university is achieving the first part of its goal—raising $18 million by 1963. Over $15 million have been realized in just 3 years. The drive for $2 million from alumni and friends throughout the Nation has just begun, and there is every assurance that the goal will be met.

Summary

The transformation of the university since 1940 is phenomenal. It no longer looks like the oldest university west of the Mississippi. Its development for the future is assured. Beginning with a 3½-acre North Grand campus in 1940, it will soon develop into a 40-acre campus. The South Grand campus has grown from 2 acres to 13. Plans for the immediate development of the Mill Creek area and the total north campus are progressing without interruption because every committee knows that some day in the near future the president of the university will push the button to put the plans into action. They will be ready.

Being in the center of a congested metropolitan area is no longer considered a handicap but a decided advantage, especially when the campus is fully developed (according to a plan) a few years hence. The university has a new ambition which is to change "the oldest" to "the first west of the Mississippi."

Considerations for Future Planning

Land usage.—When the university first saw the possibility of acquiring 22 acres by purchase from the Land Clearance for Redevelopment Authority, the tract seemed immense. However, successive layouts of proposed low-rise rambling structures on the model of the campus soon made it clear that an urban school can by no means afford to imitate the practice of nonurban institutions in consuming large tracts with low-rise structures, except where the volume of traffic makes vertical circulation impossible or impractical. High-rise residence halls, such as Marguerite Hall and Rogers Hall, have been successful, and the same success is expected in the addition to the men's residence hall, which is planned to rise 14 to 16 stories.

City traffic problems.—Located on busy city streets, the university shares the traffic problems of the city. In addition, the traffic generated by faculty, staff, and students aggravates the city's problems in the area.

At present, the university provides parking space for about 400 faculty and staff and 350 student cars on the north campus, whereas some 2,900 day students and 1,500 night students have registered their vehicles for a parking permit, more aptly dubbed a "hunting license." In the coming years, the number of cars driven by students, faculty, and staff will increase. Since land is limited and costly, two or more large multideck parking facilities seem to be the only solution to the vexing problem, provided they can be built and operated on a self-amortizing basis.

It is incumbent on the university administration to work closely with the traffic commissioner, with the officials who are responsible for long-range city planning, and with public utility and public transportation companies. Cooperative planning with these agencies will avoid future problems, and will result in: (1) establishing favorable locations for parking facilities provided with adequate approaches from and exits into city traffic; (2) provision for adequate bus stops which do not hinder traffic flow; (3) planning of overpasses, underpasses, or traffic signals to regulate pedestrian traffic across busy streets; (4) coordination of street lighting with campus area lighting; and (5) provision of adequate fire lanes which serve for pedestrian and limited vehicular use in a manner which contributes to the beauty of the campus. Delay in contacting these officials often results in misunderstandings and in failure to observe requirements that cannot be met without last-minute changes, costly in time, dollars, and esthetics.

Costs of remodeling existing structures.—Urban schools acquiring improved property are faced with a choice between remodeling the structures or razing them to erect new buildings. The city building code and requirements to obtain an occupancy permit are major factors which are easily overlooked in the initial stages of acquisition and planning for reuse. No specific rule can be given because of the great number of variables and requirements peculiar to each individual case. Speaking generally, the school will incur the least amount of difficulty and expense by finding a usage which is as near as possible to the former usage or to the purpose for which the building was constructed. It is of great importance, in the early stages of consideration, to consult a staff member or other person who is thoroughly familiar with building codes and requirements for an occupancy permit. These same consultants can be of invaluable assistance in estimating the cost of remodeling such structures, which because of incomplete planning, generally poor condition of mechanical equipment, and inadequacy of wiring and electrical circuits, almost invariably exceeds the estimated cost. Estimated costs of acquisition, modernization, remodeling (including a 20 percent margin for contingency), and furnishing, should be carefully weighed against the anticipated span of years of satisfactory use by faculty, staff, and students who are expecting air-conditioned classrooms, laboratories, and offices. Likewise, these factors should be balanced against the cost and the loss of time until new facilities can be erected.

Planning a structure takes time.—"No one ever planned a perfect building" is a commonplace which is all too true. The first cause of dissatisfaction with new buildings is the haste with which they are frequently planned.

The actual span of time between the decision to erect a building and the final acceptance and occupancy of it is often nearly double the sanguine estimate in the minds of business executives and academic administrators. This occurs because allowance is not made for factors outside their personal experience. It is possible to erect a million-dollar building in a year, but only by incurring unnecessary expenditures and risking a poorly planned structure. A more realistic schedule would proceed as follows and would in all probability result in a building with fewer flaws:

Preliminary Plans:	*Estimated time in months*
The drawing, reviewing, and reworking (many times) of several alternate schemes	4
Preparation of working drawings and specifications	4
Review and revision of working drawings and specications	1
Submission of proposals by contractors	1
Construction time	15
Cleaning and furnishing	1
TOTAL TIME	26

A multimillion dollar structure can be planned and built in about 3 years. One salient fact to remember: A building is never better than the painstaking planning effort put into it during the preparation of preliminary drawings, unless as an alternative costly change-orders are given to the architect after working drawings are completed or after mistakes are seen in the building during construction. It is in the early stages that planners must resist patient and impatient urgings to speed the plans and construction of a building which is desperately needed.

Planning must be flexible.—A second reason for poorly planned construction is the failure to plan a structure which can be adapted or altered for changing uses and conditions without incurring major expenditures. Academic and nonacademic facilities should be planned on a modular basis so that changes in function and requirements can be accommodated economically and efficiently, either during the time of construction or after the building is in use.

A third reason is the error of ordering the preparation of working drawings and specifications before it is clear that construction will begin without delay. Even if modular construction has been adopted, sufficient advances or changes in educational theory, architectural and engineering techniques, building materials, building codes, and instructional equipment are being developed each year to make the building more or less obsolete before construction begins. The only solution is to refrain from preparing working drawings until all obstacles to construction (acquisition of property, eviction of tenants, financial arrangements, etc.) have been removed. A delay of 4 to 6 months is far less costly than the revision of working drawings or working in a building that is less than satisfactory because of the delay incurred in revising the working drawings and specifications.

Acquisition of real estate.—Urban schools desiring to acquire adjacent real estate face several grave difficulties in obtaining parcels at fair market value unless they can purchase through condemnation by the right of eminent domain. In order to effect acquisition of property in the best possible way, it is essential that the president limit the knowledge of the intent to acquire to very few persons.

After agreement has been reached on which parcels are to be acquired, consultation should be had with a prudent local realtor who is in sympathy with the goals of the school. The process of acquisition at fair market value may require several years, since it is better to wait until parcels are put on the market by owners than to approach owners who may have no particular need or desire to sell. Since timing and ability to purchase on sudden notice are of utmost importance in real estate transactions, it is imperative that funds, appropriated in advance, be available at all times.

Only when all parcels in the tract have been purchased should the school proceed to clear the land for parking lots or building sites. Only then can the school publish drawings and perspectives of facilities it hopes to erect. If such a program cannot be followed, the school will, in most cases, be forced to pay premium prices. Ironically, the school which improves its neighborhood is forced to pay higher prices because of its own improvements.

Building committees.—The committee authorized to plan new construction or major remodeling should be no larger than necessary. However, a minimum committee would include a financial officer, a staff architect and/or engineer, chief officer or administrators who will direct the school or department to be housed in the completed facility, and an officer from the Department of Buildings and Grounds. Each person should be a good "team-man" who is capable and willing to consult with all other interested persons.

The chairman of the building committee must have broad experience in all the various stages of the planning and construction processes. It is imperative that the chairman and his committee follow a recognized procedure faithfully and report progress regularly through the distribution of minutes to all whom the president designates, and by periodic report meetings. Numerous detailed procedures have been published. It remains for the particular school to allocate responsibility to the various members of the building committee and to make sure that the procedure is adhered to step by step.

Observations in Retrospect

The campus of Saint Louis University will always be small in comparison to those of most schools with a student body of comparable size. Hence, it is unlikely that distances between buildings will ever become a major obstacle to class scheduling. But as groups study the three-dimensional model of the campus with a view to selecting ideal sites for future buildings, they are inclined to express regret at the location of some of the existing buildings.

For instance, they wish that the men's residence halls had been built somewhere on what we now call the periphery of the campus, rather than in the center, near the library, whereas instructional facilities or faculty offices should be centrally located so as to offer greater convenience to all. But in 1946, when Clemens Hall was erected, land on what today is called the periphery of the campus, was not available.

Secondly, successive groups of planners will almost certainly have different views as to the ideal location of a women's residence hall. When Marguerite Hall was constructed, some were dubious about the "far-away" location and the safety of the girls. Nevertheless, it has worked out satisfactorily, especially since the neighborhood has been improved by the construction of illuminated commercial structures on nearby sites formerly occupied by dimly lighted mansions. It is quite possible that future planners will be delighted that Marguerite Hall is on the periphery, where many consultants say it should be.

Thirdly, the location of Des Peres Hall, a classroom building erected in 1947, close to the intersection of West Pine and Spring, on a busy upgrade truck route with traffic signal, might also be considered to have been a mistake in planning. The roar of gunned motors and shifting gears makes instruction almost impossible, especially with open windows in the summer. Since the structure had to be there or not be at all, it has proved to be a necessary "mistake." Eventually, the building can be converted to uses other than instructional.

Conclusion

Hindsight is wonderful—always 20/20 or better—and has an air of infallibility about it, especially since our predecessors usually are not present (or are too wise) to explain their decisions or to refute our comments upon their work. It is grossly unfair to hint that they were naive or myopic in their planning and building. What was advanced thinking in their day may seem shortsighted to us today, but we have no more assurance than they that our successors will be sympathetic to what we today regard as the ultimate in planning and execution. It is in this frame of mind that we will make today's decisions for tomorrow and the future.

Chapter V

PLANNERS WHO HAVE the good fortune to be free in their campus planning to make a clean start with no hobbles of pre-existing patterns may be the envy of other campus planners. But they also are faced with the severe judgment of posterity should they fail to fully assess the trends and to provide adequately for tomorrow's tomorrow in educational facilities. The planners at the University of South Florida were primarily concerned with building a forward-looking philosophy of education and then implementing that philosophy with adequate facilities.

Planning the University of South Florida

By John S. Allen

President, University of South Florida

THE UNIVERSITY OF SOUTH FLORIDA opened in Tampa on September 26, 1960, with 1,997 students in its first freshman class. Of these, 60 percent were males, 1,238 were taking 12 semester hours or more, 1,559 were degree candidates, 1,969 came from Florida, and 22 came from 16 other States. The Floridians came from 28 of the 67 counties of the State. The students ranged in age from 16 to 68, and 1,102 of them were between 18 and 21 years of age. Enrollment predictions indicate the university can expect 10,000 students before 1970.

Behind these statistical facts lies the story of one of the most ambitious development programs ever to be undertaken by a State in the history of American higher education. In addition to the University of South Florida, 2 other new State universities and more than a score of 2-year community colleges have been or will be created in the State in the 15-year period from 1955 to 1970.

The Need

The need for expanded educational facilities in Florida can be seen in background material about the State itself. The population of Florida has been growing at a fabulous rate for many years. On the average, it has doubled in population every 20 years for the past century. The 1950 census reported 2,771,000 people in Florida, and this figure was increased in the 1960 census to 4,952,000. There is agreement among demographers that the 1970 census will show close to 8 million people in Florida. This increase in population is, of course, due to the high birth rate which Florida—and the Nation—is experiencing, plus in-migration. Growth, however, inevitably brings new problems to be solved and one of these is education.

The responsibility for all public education in Florida rests in the State Board of Education, which consists of the Governor, the State Superintendent of Public Instruction, and three other members of the State Cabinet. This is a constitutional body. The Legislature in 1905 created the Board of Control for State Institutions of Higher Learning, and the Board of Control has the responsibility for establishing policy and overseeing general operation of the State universities, subject to approval of certain items by the State Board of Education. In 1954, there were three State universities under the Board of Control, namely, the University of Florida at Gainesville, Florida State University at Tallahassee, and Florida A & M University at Tallahassee. There were also nine private accredited degree-granting colleges and universities at that time, and the total enrollment of both the public and private institutions was 38,536.

Early in 1954, the Board of Control, with the concurrence of the State Board of Education, recognizing that the rapid growth of the population might result in rapid expansion of enrollments in public institutions of higher learning, authorized a study of higher education facilities and needs to be made. The Board of Control appointed the Council for the Study of Higher Education in Florida, consisting of John E. Ivey, Chairman; A. J. Brumbaugh, Director; Earl J. McGrath; Floyd W. Reeves; and John Dale Russell. The result of the study were printed in a one-volume summary report,[1] and there were several supplementary reports and studies which were produced in mimeographed form. The council studied enrollment growth, educational needs, the economic growth of the State, and possibilities of support. It also analyzed the public and private colleges and universities in the State and determined through conferences what each of these institutions envisioned its role to be and what each could achieve by way of expansion in enrollment in the years ahead.

Early in 1956, the council made its first report to the Board of Control, revealing that population experts who had been working under the direction of the council had predicted that college enrollments would expand to 132,000 students by 1970. (Continuing restudies made by the Board of Control staff with later figures have indicated that this figure could be expected to be in excess of 180,000. In the fall of 1960, the total college enrollment had climbed to 68,172). The council reported that its conferences with representatives of private colleges indicated that these private schools might, on the average, expand their enrollments by about 50 percent. This meant, then, that the State universities would have to expand, not 200 percent, but nearly 400 percent. This, the council felt, would be undesirable. It was pointed out that such expansion would be unduly expensive, since dormitory space would have to be provided for practically every additional student who could be enrolled in the present State universities, all of which are operating in relatively small cities. Such expansion of classrooms, laboratories, and library facilities would also be difficult.

The council urged the Board of Control to seek funds from the State Legislature for the establishment of a degree-granting institution in the Tampa Bay area. The council also recommended that this be followed up at a later time with the establishment of a degree-granting institution on the lower east coast and, still later, with another degree-granting institution in the Pensacola area. And, finally, the council recommended that the State plan to create 18 additional community-junior colleges in the thickly populated areas of the state.

Some of the regional infighting which occasionally attends the establishing of a new institution with public funds was avoided in this instance by the action of the State board in early determining that a stated number of new colleges would be approved, and then by designating the respective general location of each. The competition for the one which became the University of South Florida was therefore confined to the Tampa Bay area.

Selection of Site

In the meantime, Hillsborough County, in which the city of Tampa is located, had been active through its legislative delegation in getting the 1955 Legislature to pass an enabling act, authorizing the State Board of Education to establish a degree-granting institution in Hillsborough County when and if the Board of Control should make favorable recommendations. The Board of Control, on the advice of the Council for the Study of Higher Education, had specified that the site for a State university should have in it at least

---

[1] Brumbaugh *and* Blee. *Higher Education and Florida's Future.* Gainesville, University of Florida Press, 1956.

1,000 acres. Henderson Airfield, inactive since World War II, was being developed by the county and the city as an industrial park. The county cut off 960 acres at the northern end of this tract for a campus, and two business associates who owned several thousand adjacent acres northeast of this area promptly gave 734 acres to the county. making a total of 1,694 acres which the county then offered to the State for the campus of the proposed institution. The officials of Hillsborough County and the City of Tampa joined with the Greater Tampa Chamber of Commerce in making studies of the feasibility and desirability of this particular site for the campus of the proposed university.

In December 1956, the Board of Control, having reviewed the recommendations of the Council and the studies produced by Hillsborough County and the City of Tampa, approved the site and submitted its report and recommendations to the State Board of Education. On December 18, the Board of Education passed a resolution creating the institution and urging the Board of Control to submit a budget to the 1957 Legislature. September 1960 was set as a target date for the opening of the institution and thus a university was born—nameless, penniless, and without staff or students.

The site is located 9 air miles northeast of downtown Tampa, just outside the city limits. It is, however, in an urban setting, with one million people living within a radius of 50 miles. Tampa, St. Petersburg, and Clearwater are growing rapidly and are gradually merging into one large metropolitan area. The location was important since the institution would open without dormitories and its charter students would commute to the campus for classes.

The campus land ranges from 25 to 75 feet above sea level which, for Florida, is "rolling land." The eastern end of the campus borders on the Hillsborough River, which floods occasionally. This area will not be used until a flood control program is worked out. The first buildings are on high ground in the center of the 960-acre tract and are about 3 miles from the river. No unusual drainage problems exist on this relatively high ground.

The City of Tampa extended its sanitary sewer lines to the campus, even though this is beyond the present city limits. The University pays a sewer use fee and thus did not have to install its own sewage plant. Fire protection is provided by the city. Engineering studies indicated that for normal water uses it would be cheaper in the long run for the University to drill its own water wells as needed, install its own storage and pressure tower and water treatment plant, than it would be to purchase water from the city.

Roads bordering on the north and south sides of the campus were widened and repaved to accommodate the first increases in traffic to the area. A north-south road was built along the west side of the campus, which would also serve the Industrial Park which is to the south of the campus. A portion of the United States limited access highway system is scheduled to pass within 2 miles of the west end of the campus. An interchange is planned on which fast moving traffic from downtown Tampa and St. Petersburg and from the north can move from the throughway onto the road which makes the south border of the campus.

Just across the road to the south of the campus is an area designated by zoning for research and development offices and laboratories for neighboring industries. The areas to the east and north of the campus are zoned for single family residences.

Tentative Plan

With only the broadest outline of the kind of institution that was needed in the Tampa Bay area, the staff of the Board of Control prepared a budget to submit to the Legislature. The architect on the Board of Control staff was asked to draw up a preliminary plan for land use—that is, a campus plan—and also preliminary plans for the first buildings. These plans for campus and buildings were tentative, designed to give the Legislature some visual impression of how the institution and its physical plant might be arranged and constructed. They were later superseded by the permanent plans. In the meantime, the Board of Control sought the advice of a variety of architects and named an advisory group of five architects selected from five different cities in Florida. The 1957 Legislature, prior to its adjournment in mid-June of 1957, appropriated $8,602,000 for buildings and equipment and

$140,000 for salaries and expenses for the initial planning staff for the 1957–59 biennium.

Appointment of President

In June 1957, the Board of Control formally nominated John Stuart Allen to serve as president of this new institution. This nomination was confirmed by the Board of Education in July 1957, and the president assumed his new responsibilities on August 1, 1957. There were some citizens of the State who, being unfamiliar with the development of an institution of such magnitude, questioned the need for a president when the institution had no buildings, no students, and no faculty. Subsequent experience has shown that one individual, with the proper responsibility and authority, is essential to the orderly planning and coordination of the educational program, the physical plant, and the hiring of personnel to operate it.

Selection of a Name

To find and get acceptance of an appropriate name should be one of the easier and more routine tasks of planning. However, the interest in this new and unique project was high, and hundreds of names were suggested, both in personal correspondence and in letters to the editors of newspapers. One organization wanted to sponsor a contest to name the institution. The situation was complicated further by the fact that original suggestions called for an institution which would be primarily a liberal arts college, organized on a divisional basis. It was realized, however, that the institution would grow rapidly in size and diversification of offerings, and these later considerations resulted in the organization of several colleges in the beginning and led to the use of the name "university." A name such as "Gulf Coast University" was suggested, but this name could apply to other public or private institutions in any State bordering on the Gulf of Mexico. There already exists in Tampa a private institution named the University of Tampa, and Florida Southern College is located only 30 miles away in Lakeland. Since the Board of Control and the State Board of Education would have to make the final decision on a name, it was finally agreed that they should take initial action, thus avoiding a man-in-the-street contest. There was general agreement that the word "Florida" should be in the name. The institution is located 250 miles south of Florida State University and 130 miles southwest of the University of Florida. Since it is away from the area known as west Florida and north Florida, long deliberation led finally to the selection of the University of South Florida as the official name. Naturally, it will draw the majority of its students from the West Coast area near the campus, and from the southern end of the State, although it is designed—as are all public universities in this State—to serve the entire State of Florida.

Area To Be Served

The original recommendations of the Council for the Study of Higher Education and of the staff of the Board of Control were that the University of South Florida should be a 4-year degree-granting institution, with emphasis on the liberal arts. More detailed studies, however, indicated that a broader program was needed.

The Tampa Bay area is a center of transportation, business, and industry. It is also a center of extensive cultural activities. There are four symphony orchestras within 50 miles of the campus. There are many little theaters and more than one ballet group. It is an area in which the fine arts are already participated in and enjoyed by a number of people, and this indicated something of the role a university in the area must play.

There are more than 3,000 public school teachers in Hillsborough County, and the county requires about 500 new teachers per year for replacements and expansion. All of the teachers require occasional courses for keeping up to date and for certificate renewal. Within reasonable commuting distance of the campus there are probably 10,000 public school teachers. Therefore, it was evident that the University of South Florida should have not only a strong liberal arts program, but programs in business administration, education, and fine arts. It was evident also that the rapid growth of the university would cause the institution to grow in complexity as it grows in size, and that its organization should be planned in the beginning to meet this situation. Therefore, the institution was organized with four colleges: College of Basic Studies, College of Business

Administration, College of Education, and College of Liberal Arts. Liberal Arts is organized on a divisional basis, with divisions in natural science, social science, humanities, and fine arts.

Coordination and Cooperation

The problem of unnecessary duplication among State institutions of higher learning is one of concern to all educational planners. An early decision was made that the University of South Florida program should be carefully articulated with the efforts of the other State-supported institutions. The older State universities in Florida have several schools and colleges which, although important to the State, enroll relatively few students and thus have rather high operating costs. It was evident that there was no need to duplicate these small units. The University of South Florida, in establishing the colleges listed above, is duplicating only the largest units at other State universities, and other units will be added as the needs of the State are identified. Transfer plans have been worked out with the University of Florida and Florida State University for students who start at the University of South Florida and who wish to take programs in units with small enrollments, such as, for example, agriculture, nursing, or social work. The question, then, is not so much one of simply avoiding duplication but of deciding what duplication is necessary. The large units in an institution of any size, such as a department of English or a department of mathematics, become so large that multiple sections have to be offered. When this is the case, then it is perfectly justified from all points of view to offer these same programs in still another institution.

The University of South Florida has also developed cooperative arrangements with its near neighbor, Florida Christian College. This church-related junior college is located in Temple Terrace, about 2 miles from the University of South Florida campus. It has in its enrollment a number of preministerial students and, therefore, offers both Greek and Latin. At the moment, the University of South Florida is not offering either of these subjects. Therefore, arrangements were worked out whereby a student at the University of South Florida who wishes to study Greek or Latin may, by mutual agreement of the two deans involved and by payment of an appropriate fee at Florida Christian College, register for one or both of these courses as part of his total program. The reverse arrangement was also made so that students of Florida Christian College can register for courses at the University of South Florida which may not be offered by Florida Christian College.

Educational Objectives

In developing the objectives of the institution, we felt that we had two primary publics—one, the faculty which we hoped to attract to the University of South Florida, and the other, the students and their parents. The following are the objectives of the University of South Florida:

1. To provide the citizens of Florida with another public institution of higher learning, which will be outstanding in quality of instruction and high in level of scholarship.
2. To create a community of scholars dedicated to teamwork in the search for truth, the exchange of ideas, and the establishment of high standards of intellectual inquiry and creative activity.
3. To provide an opportunity for the development and training of the mind which will promote maturity and objectivity in dealing with problems of profession and life.
4. To provide a broad cultural and basic educational pattern for all students together with programs of liberal, preprofessional, and professional studies in the fields included in the university's plan.
5. To encourage and provide opportunity for students to work independently and thus accelerate or enrich their programs.
6. To provide a cooperative program combining education with work experience.
7. To provide opportunity for qualified students with inadequate financial resources to secure a university education.
8. To provide an opportunity for the development of social, group, and individual skills through extracurricular activities.
9. To provide a center for cultural, intellectual, economic, and scientific interests and activities of the residents of Florida, and to provide leadership in these fields.

Programs

The reason for devoting so much of this report to academic programs is that such considerations as these should determine the type, size, arrangement, and functional relationships of a college campus. Too many people appear to assume that buildings are planned and built first and then the educational programs are fitted into them.

The objectives of the university can be served in two programs—(1) education for earning a living in the student's chosen profession or vocation; and (2) education for living a full, responsible, and responsive life. We believe that education for personal and civic responsibility is too important to leave to chance. We are all citizens, members of families and members of community groups. We must all have some understanding of human behavior, government, international relations, science, mathematics, philosophy, literature, and fine arts. There are some areas of knowledge which should be common to all men, and we want our students to be well acquainted with these. Therefore, we set about to do this in an orderly fashion. To give emphasis to this program, we organized it in a separate college, known as the College of Basic Studies. All students of the University will be enrolled in this college during the first 2 years.

College of Basic Studies

It is the purpose of the College of Basic Studies to provide that part of the student's education which should equip him for better living. This emphasis is, of course, not limited to the College of Basic Studies, but is carried on through the upper division colleges as well. There, however, the emphasis undergoes a shift toward professional and other educational goals. Nor does the College of Basic Studies confine its emphasis to preparation for better living alone. Students entering with definite professional and educational goals may begin their work toward these ends in the College of Basic Studies while still carrying studies of more general nature. While this program leaves gaps for the interested student to fill, its does provide him with enough selected typical samples explored at a depth so that he can project a reasonable understanding of the whole field. It should be clearly understood that courses such as these are not intended to prepare specialists.

In addition to exercising this principle in the instructional programs for natural sciences and the humanities, a similar approach is being applied in the social sciences, mathematics, English, human behavior, and foreign languages. In all these areas, the principal objective is the training of educated laymen.

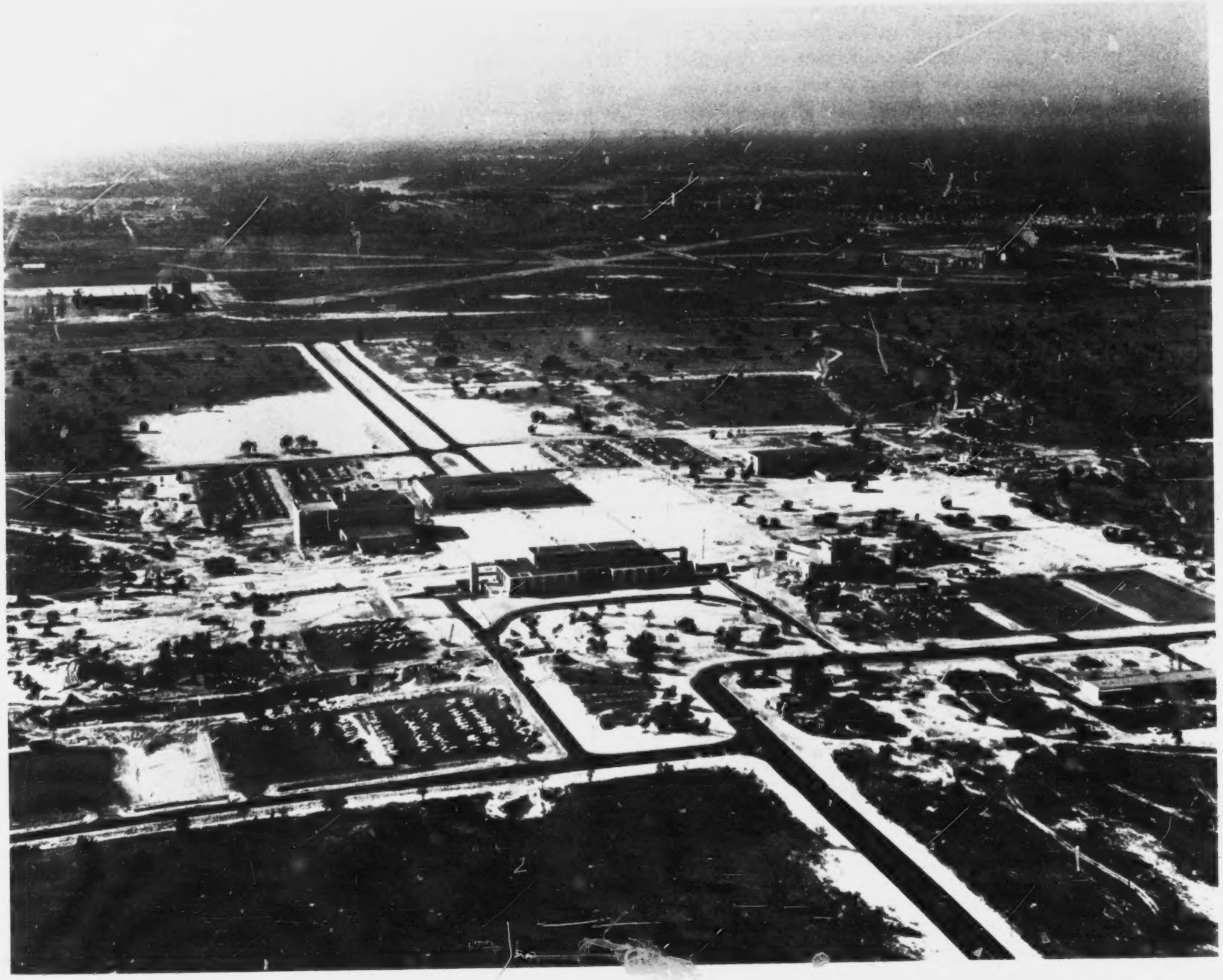
The College of Basic Studies proposes to try a rather new and different approach to the study of foreign language. It is a practical approach based on conversation and including a minimum of grammar. It will use the laboratory method which will involve recordings, listening devices, native conversationalists, pictures, trips, and other means to provide a practical understanding and speaking knowledge of a foreign language.

Each student will normally take from 30 to 36 semester hours of work in the courses offered by the College of Basic Studies. The balance of each student's time during the first 2 years (24 or more semester hours) will be devoted to taking courses in one or more of the upper division colleges. If the student already has a definite professional or educational objective, some of these courses can be included as part of his major, which he will select finally at the end of the second year. If he does not yet have well-defined educational objectives, he may wish to elect courses in several different areas in order to discover a field of interest. In any event, about half of his time in the first 2 years will be free for selecting courses of his own choosing.

Each of the basic courses will have honors sections. Students with superior high school averages and test scores in the 12th-year high school tests will be expected to enroll in these sections. Honors sections will, in general, deal with the same materials as other sections. They will, however, consider problems and topics at greater depth, move at a faster pace, and involve greater student participation. Each student will have a Basic Studies adviser who is a member of the faculty. If a student has decided definitely on his major field by the beginning of the second year, an adviser from this field will also assist him in choosing his courses.

The university requires that all students, unless excused by a university physician, attain some skill in team sports, individual sports, and aquatics. All students must know the basic principles of personal hygiene and public health. The necessary skills and knowledge can be obtained in courses provided for the purpose or in other ways, but they must be achieved by the end of the second year.

In order to bring some of the values of diversification together before students finally depart



Campus of University of South Florida. The original buildings were erected near the center of the site allowing future buildings to expand the campus in all directions. Streets and drives are kept away from the central plaza or mall.

from the university and in order to provide a greater sense of unity to the whole program, the university proposes to have a senior course which all students, whatever their major, will take together. This course will draw its materials from the social sciences, the natural sciences, the humanities, and the major fields of the students concerned. In a sense it will be a course in the methodology of attacking problems and reaching value judgments. It will deal with some problems of social science and with the methods used in attacking these problems. Each student should, if the course is to be meaningful, prepare a paper on the relations of these fields and their methodologies to his own major or professional field. It is also, as the culmination of his college life, the place for him to prepare his own paper on his own philosophy of life. In it he should not only try to establish his own ethical, moral, and value standards, but should, as well, attempt to synthesize and pull together the work of his 4 years.

The Planning Process

After determination of educational objectives, the first step in planning was to list functions which are central to a university and, therefore, should be located centrally on the campus. For example, the library is the heart of a university. Therefore, it should be located centrally, and it was decided to make it the tallest building on the campus to symbolize its role as the heart of the University of South Florida. In keeping with this idea, the first staff member to be hired was the librarian. Too, the administration of a university is central to its organization and operation and therefore needs to be centrally located for convenience.

There would be a need immediately upon opening for food services for students, lounges, recreation areas, meeting and study places—the equivalent of a student union building.

Immediately around these central functions should be located buildings with classrooms, laboratories, studios, lecture-rooms, and a teaching auditorium. Further out from the center, where the public may come and go without having to penetrate the very heart of the campus, would be such facilities as a large auditorium, living areas for men and women students, a gymnasium, and physical education facilities. Still further out from the heart of the campus would be such facilities as a power plant, a maintenance building, parking lots, and playing fields.

The president met first with a group of educational consultants to develop basic plans for the educational program already detailed. An experienced campus planner was employed to develop a meaningful campus plan on the nearly 1,700 acres available. His plan for land use made the campus come to life and have meaning.

In late August and through September and October, the president met with the advisory group of five architects who had been appointed by the Board of Control. The campus plan was shown to them and it proved to have concepts in it which were new to them. They understood city planning and not campus planning. This meant that the campus planning had to be explained to the advisory group. However, this was good; it made the campus planner and the president prove that they had been clear in their thinking and that they had good reasons for the decisions which had been made.

The campus plan proposed that the original group of buildings be located as near to the center of the campus as possible, thus allowing the construction to expand in all directions. It proposed a central plaza, or mall, with buildings aligned on the north and south sides. This plaza was to be quiet and restful with no streets across it and all campus drives going around it. (See p. 54) After buildings have filled the area, the plaza would eventually form an impressive mall running on the east-west axis across the campus. An area then was designated for instruction, and another area just to the east of the instruction area was designated for residence halls. Physical education playing fields and other facilities were planned for the area east of the residence halls. It was proposed that no driveways should go through the instructional area, but rather should carry the traffic around the periphery of the campus, with driveways leading to parking lots in the instructional and residential areas. Cars could move off the highways onto the campus driveways circling the residence halls and instructional areas, and move onto the parking lots. Students could walk from these parking lots to the various campus buildings, and walk from building to building more quickly than they could go back to the parking lot and drive to another parking lot on the other side of the campus.

Using the advice of his educational consultants, the president told the architects how many classrooms and laboratories would be needed and indicated the kind and size needed. He also described for them the administrative organization, the number of offices, and the inter-relationship between offices. For instance, the desirability was explained of placing the registrar's office and student affairs office near each other, allowing both to utilize one set of records and avoiding unnecessary duplication. After many sessions with the advisory group of architects, they came to understand that the buildings should be designed first of all to house the educational program and that they should be truly functional.

It became clear that if the institution was to open in September 1960, there was not time to design the buildings sequentially, but rather that all of the first group of buildings would have to be designed simultaneously. The president had developed programs for five buildings, and it became evident from conversations with the architects that there was no one architectural firm in Florida that was large enough to design five major buildings simultaneously without having to lay aside all other work to which they might be committed. Therefore, the advisory group of five architects proposed that they form a group to enter into contract with the Board of Control to produce the plans simultaneously for the first group of five buildings. It was agreed that even though the architects were in different cities, they would work as a group, meeting frequently with the president and with one another to criticize their work. If one architect should fall behind in his work and not be able to deliver plans, the others would join forces to see that the plans were produced on time. Actually, the complexities of contracting with the State were such that five contracts were called for, rather than one, but the architects, nevertheless, agreed to work as a group, regardless of the contractual arrangements. These arrangements were approved in October 1957. The architects were to deliver preliminary plans in January 1958, and the final working plans and specifications the following June.

The five architects who did the first five buildings were called together by the president for many meetings and conferences on the educational plan and then they set to work to produce preliminary drawings and, finally, working drawings and specifications for the buildings. The president served as coordinator for this group of architects and got them to agree on the style or character of the buildings. Each building is different in size and shape because it has its own particular function. Unity is achieved by using the same materials and colors in all of the buildings.

Since the buildings are to be used the year around and are air-conditioned in the summer, they are insulated from outside weather conditions as much as possible. Most of the buildings have no windows on the east and west walls, thus keeping out the morning and afternoon sun. Windows on the south wall are covered by concrete grillwork, or sun screens, which allows indirect light to come in the windows but keeps the direct light from the summer sun from striking the windows. These screens reduce the air-conditioning load in the buildings considerably. Thus, the character of our buildings, described as "Florida Contemporary," is the common theme, but each individual building is a variation of this theme.[2]

The Administration Building is designed to serve its purpose adequately for an indefinite period. About one-half of it is now used for administrative offices. It also has 18 classrooms at the present time. These are grouped around the registrar's office, the business office, and the student affairs offices. These various offices have functions which will have to expand with greater enrollment. Therefore, as new office space is needed, the classrooms in this area can be taken over and converted into offices. At the same time more classroom buildings will be built and the classes can be moved to these buildings which are scheduled to come along later.

The University Center houses the food service facilities which will suffice for 2 or 3 years before expansion is needed. It also houses the campus bookstore, student lounges, recreation rooms, student activity meeting rooms, and 16 classrooms. Later these classrooms will be taken over by student activities as they grow and as special classroom buildings are built.

---

[2] Allen, John S. A New University Is Born. *College and University Business*, July 1960.

The chemistry building has chemistry laboratory tables in it and it is used now by physics, zoology, geology, and astronomy, as well as chemistry. It has two lecture-demonstration rooms seating 200 each and has sloping floors, projection screens, blackboards, closed circuit TV, and full facilities for science demonstrations. It has 16 classrooms, ranging in capacity from 20 to 60 seats. Each has utility lines to the lecture table for all science demonstrations. Each is connected by coaxial cable with the lecture demonstration rooms for closed circuit TV. Faculty offices are on the top floor of the classroom wing. All floors are served by an elevator. The laboratory wing has stockrooms in what would normally be the center hallway. On the first floor a general chemistry laboratory with 96 student stations is on one side of the stockroom, and a physical chemistry laboratory with 50 student stations is on the other side. Thus, the physical chemistry laboratory has more square feet per student station than has the general chemistry laboratory. The one stockroom between the two laboratories can serve both laboratories by placing as many attendants in it as are needed to handle the volume of work that develops at various times in the week.

On the second floor the central stockroom has a 72-station laboratory for intermediate chemistry on the one side, and a 72-station laboratory for organic chemistry on the other side. Each laboratory has many equipment drawers for individual assignment at each station.

The third floor has some smaller teaching laboratories for advanced courses and it has faculty research laboratories. The faculty offices are at the other end of this same floor. The basement has air handling equipment, shops and equipment storage, and space for the equipment curator.

The Teaching Auditorium-Theater seats 588 in theater-type seats with tablet arms which may be raised into position when needed for taking lecture notes. The stage is equipped for drama productions. Dressing rooms are below the stage. The lobby is designed to double as an art gallery.

The library is designed to provide 2,000 seats for students to study and shelf space for 250,000 volumes before it has to be enlarged. This is an "open stack" library and it has the usual reserve rooms, reference facilities, special historical collection rooms, study carrels, receiving rooms, music listening rooms, and a faculty lounge.

The heating is done by natural gas, with oil as the standby fuel. A central plant, with heating units and compressors for cooling, prepares hot water for circulation by pumps through underground pipes to the other buildings. In the summer chilled water is pumped through the same pipes. Each building has its own unit for heating and cooling the air from the water circulated to the building. The air is then distributed throughout the building in question. By such a system and its thermostatic controls, the water, either hot or chilled, flows to the building which has the greatest load or need for it. This load shifts from one building to the other at various times during the day as people move from classrooms to laboratories, to the library, to the University Center, and to the dormitories. By this system the cooling units in the central building can have less maximum capacity than would be the case if every building had in it the full cooling capacity it would ever need.

A classroom-administration building, a science building, a university center, a central heating and cooling plant, and utility lines were contracted for, with only slight delays. The library and teaching auditorium were postponed until the State's income could provide for these buildings. The necessary income did not materialize in that biennium and the 1959 legislature reappropriated money for the library and the teaching auditorium. It also appropriated money for a life sciences building to be ready for the second year of operation, and a maintenance and shop building and physical education shower and locker room building to be ready for the first year of operation. A partial down payment on the first dormitory, to be ready for the second year, and planning money for a large humanities building needed in the third year were also appropriated. Finally, the legislature provided an operating budget for further planning during the year 1959–60 and for the year 1960–61, the first year of operation.

Orderly Growth

In planning sessions, it soon became evident that to establish all 4 years of the undergraduate curriculum at one time would mean that while the University of South Florida would be admitting freshmen, it would also be admitting transfer students from a great variety of other institutions. These transfer students would have had various fragments of the college degree program. We would be unable to determine in advance what offerings at the junior or senior level would be in demand and the students who transferred to this new and untried institution might generally be those who had not succeeded in the institutions where they had started their college programs. In order to have some control in establishing a program of high quality, to be able to plan and develop our program in an orderly fashion, it was decided to admit in the beginning only a freshman class in September 1960, and add a class a year until the full 4-year degree program is in operation.

Since the University will be essentially an undergraduate institution in the first years of its operation, the importance of teaching and of learning will be stressed. During its formative years, graduate research will not be central, but teaching will be all-important. In such a university, many of the values which could be inculcated in students through residence in college must be gained through the classroom or not at all. The commuting student cannot rely on long bull sessions or experiences in the dining rooms or residence halls for the development of his cultural appetite. Students leave the campus each night to return to diverse homes and conditions. The University, if it is to have an impact, must make the classroom teaching as vital as can humanly be done. It must also make extracurricular activities an integral part of the educational program, and they should be directed as educational enterprises.

Long-range Planning

From the studies made by the Council for the Study of Higher Education in Florida and continuing studies made by the administration of the University of South Florida prior to its opening, we were able to predict rather closely the enrollment for the first semester. Emphasis should be given to the continuing studies, for these brought out the effects of our urban setting. We have more part-time and evening students than had been estimated from the earlier studies. Fortunately, this trend was discovered in time for us to schedule more evening sections of courses and to adjust our staffing pattern accordingly. We believe that reasonable predictions of enrollments can be made for the first 10 years of operation of the University of South Florida. Knowing the expected enrollment, it is possible to determine the number of faculty needed each year.

An easy rule of thumb for determining the number of classrooms needed is one classroom for each three faculty members. In a normal work week, four faculty members would use one classroom more hours than are available. The maximum ratio probably would be 3½ to 1, but in order to have a safe margin, a ratio of 3 to 1 is used. Knowing the number of faculty, we know the number of faculty offices which must be supplied. Our first proposal was to provide one office for each two faculty members and one office for each administrative officer. This decision was modified after further experience and the policy now is to attempt to supply an individual office for each faculty member. The following table indicates the expected full-time equivalent enrollment and the number of classrooms and faculty offices which we anticipate will be needed in the first 10 years.

Year	Full-time equivalent enrollment	Faculty	Number needed—	
			Classrooms	Faculty offices
1961	2, 500	155	62	155
1962	3, 500	183	72	183
1963	4, 200	248	83	248
1964	5, 200	288	95	288
1965	6, 400	320	107	320
1966	7, 500	375	125	375
1967	8, 500	425	142	425
1968	9, 300	465	155	465
1969	10, 000	500	167	500

In the planning of our buildings we have adopted five basic principles to guide us:

1. By planning buildings in units costing $1,000,000 to $2,000,000, efficiency can be gained in construction costs and in use.

2. All the first buildings at the university should be planned for two or more uses in order that they will be fully used in the beginning as well as when they receive their ultimate use. For example, the first science building is basically a chemistry building. It housed all sciences the first year. In the second year, a life sciences building was ready and the original building continues to house chemistry, physics, geology, mathematics, and astronomy. A physics, mathematics, and astronomy building should follow immediately. In less than 10 years a second chemistry building will be needed.

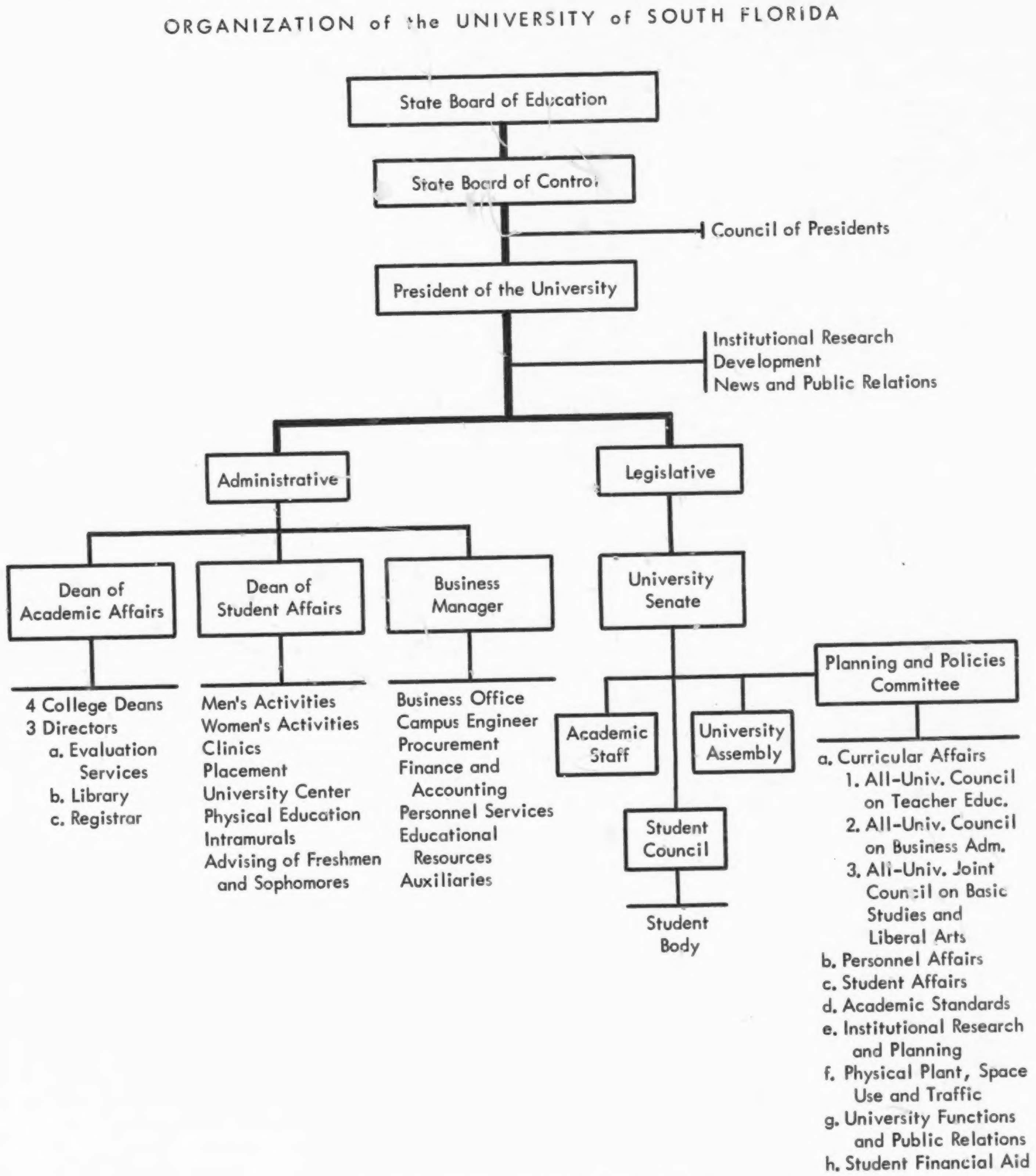


Figure 2.—Organization chart University of South Florida.

3. Special classroom and laboratory facilities must come first. A classroom equipped for the teaching of zoology can be used for teaching some other subject such as history or economics. But the reverse is not true. Therefore, we have no alternative but to provide the special classroom first, because it can do double duty.

4. The size and type of each lecture room, classroom, and laboratory must be determined by its functions and the uses that are to be made of it. It is wasteful to plan rooms to be larger than needed. It is wasteful to plan all rooms the same size. Small classes can use smaller rooms and larger rooms of varying sizes should be available for larger classes.

5. We need to have buildings ready when they are needed. It is wasteful and unnecessary to have them ready long in advance of their need and it is disastrous to the educational program to have them become available only after the need has already materialized. The foregoing table, indicating the number of classrooms, is a guide, then, to the time table on which classrooms and laboratories must be provided. Before a building can be brought into use, time has to be allowed, not only for construction, but for drawing the plans and specifications, for bidding, and for awarding of contracts. In addition, there must be prior planning, in order for the legislature to know what buildings will be necessary, when they will be necessary, and what appropriations will be needed at each session of the legislature. The "lead time" needed between legislative appropriation and the time the building can be ready for use, is for the University of South Florida 30 to 36 months. The time required for original planning and for consideration by the Board of Control and the State Budget Commission is 1 year before the Legislature meets. This means that the lead time which the university officials must take on buildings is about 4 years. Thus, in 1960, we planned specifically for buildings which will be needed not later than 1964, and in 1961 we are charting our general needs on through to 1970, with the expectation of developing programs for each of the buildings on the schedule required by the factor of lead time as described above.

Internal Organization of the University

The ultimate responsibility for the University of South Florida rests with the people of the State of Florida, who provided in the State Constitution for the State Board of Education to have general supervision of all public education, and who through their elected representatives in the legislature created the University of South Florida and delegated to the State Board of Control the responsibility for operational policies. The president of the University of South Florida reports directly to the Board of Control and is expected to make policy recommendations to the Board.

Reporting directly to the president are three line officers, namely, the dean of academic affairs, the dean of student affairs, and the business manager. (See Organization Chart.) It is the duty of these administrative officers and their associates to handle the details of administration and operation that will provide an appropriate setting for the educational activities of the university. It is also the duty of these officers and of the staff officers to advise the president on policy, administrative, and operational matters.

To assist in carrying out the administrative functions, there is an executive committee, consisting of the president, business manager, dean of student affairs, and dean of academic affairs. This committee is advisory to the president on matters of operation and administration.

The All-University Approach

It was apparent very early that the University of South Florida was destined to become a large institution. Large universities have the advantage that they can have many specialists on the staff who can give assistance to students who are either superior or slow learners. Small colleges may not always be able to have such specialists available. In the belief that the University of South Florida, even when it becomes large, should be a total university and not a collection of individual parts, it was decided that all programs should be sponsored by the university and not by specialized colleges or divisions. Wherever possible, faculty members have been given dual appointments. While faculty members were being recruited, the administrative heads of the various colleges all reviewed credentials of various candidates and expressed their opinions about them. When official or social gatherings were planned, people from all parts of the university, professional as well as nonprofessional, were included. Whenever the needs of the institution permitted, a central agency was created, for example, to handle faculty records, so the staff and faculty would look to it rather than to decentralized autonomous subparts of the institution.

The Superior Student

Believing that the best education is self-education, the University of South Florida expects to encourage as much independent and individual work as possible. This may take many forms. The number of class meetings may be reduced for groups of able students in some courses, leaving these students more freedom for study, self-testing, and organizing student group meetings in the subject. Through the use of television and radio it will be possible to repeat some lectures for those who need the review or for those who were unable to be present originally. The development of auxiliary teaching devices makes it possible in some fields for students to raise and answer pertinent questions and check their own results. Such devices and checks are, of course, valuable for all students.

It is also likely that a number of departments in the upper division colleges will offer departmental honors work in the junior and senior years open to students who have made superior records in the first 2 years. This will usually take the form of independent study, introducing students to methods of investigation and research, and resulting in papers based on such research. It may also take the form of projects involving study of some phase of community activity, or travel to other countries to carry on studies related to some area of the world.

Students who have engaged in any of the regularly organized programs for the superior student will have this fact indicated on their records and will be entitled to consideration for graduation with honors if their total records meet the necessary requirement established by the university.

Slow Learners

There are also earnest, hard-working students whose limited ability makes it possible for them to succeed in a college career if they have good counseling, advice, and assistance in developing certain skills and procedures fundamental to learning. The university will do all it can to assist such students in both informal and formal ways.

Many students are slow learners because they have never learned to read rapidly and with comprehension. In some cases reading speed and comprehension can be greatly improved through proper diagnosis and practice. The university will maintain a reading clinic for such purposes.

Similarly, many students have never learned to write clearly and with understanding. While considerable emphasis will be placed on the improvement of this skill in the English basic course and in all courses of the College of Basic Studies, the university will also maintain a writing clinic for those needing more help.

In speaking, some of the handicaps are of physical as well as mental origin. Improvement is possible in many cases through diagnosis and practice. The university will maintain a speech clinic for those needing special help in this field.

There are other ways in which the university can assist the slow learner in a less formal manner. Television and radio lectures will be repeated from time to time so that students who need it can "attend" a second time. In some courses "learning machines" and tapes will be available for review and self-testing. The Office of Evaluation Services will administer diagnostic and aptitude tests to assist counselors in helping students make the right selection of programs and courses.

Good Teaching To Be Honored

Teaching at the University of South Florida is to be predicated on the idea that college is an organized opportunity for self-education. Hence, independent study will be encouraged. With this in mind the library has been planned with open stacks and large reading rooms to accommodate a substantial portion of the student body at one time. We believe that freshmen require the best teachers on any college faculty and this teaching includes preparing the student for more and more independent study. By the time the student is a senior he will not be dependent upon his professors and should be able to get the material even if the instruction is poor. Regardless of rank, salary, or seniority, our best teachers are to be honored by being invited to teach the elementary courses and to have their classroom doors open, figuratively, as an invitation to allow others to come and learn how they do it.

Getting Started

Assembling more than 100 persons who are new to one another and new to the institution and its program required not only a diligent search, but after that, a carefully planned orientation period. An average of nearly 50 additional faculty members will have to be added in each of the remaining years of this decade. Orientation for each of these groups will be important. A faculty handbook was written and sent to new faculty members after appointment and before arrival in Tampa.

The university business manager set up a housing office that gave all assistance possible in finding homes in Tampa and the vicinity for faculty and staff members. Realtors and developers were helpful, and the housing office served as friendly adviser to describe the various sections of Tampa and the communities around it. The housing office also found rooms that householders wanted to rent to students, inspected them, and prepared a list of rooms approved and recommended for students.

Conclusion

The University of South Florida faculty and staff have taken advantage of the fact that they have few traditions or past procedures to shackle them. They have selected the best from their past experiences and the best from other institutions and regrouped some of these ideas into a program that is coherent, has integrity, and is designed to meet the needs of students facing the last half of the 20th century. This program at the University of South Florida is designed to handle more students more effectively and more efficiently than has been done in the past. Closed circuit television is used to carry a lecture to more people than one classroom or lecture hall will hold. Tape recordings of some of these lectures are made available for replay to students who wish to hear them more than once. Our experience to date indicates that we have underestimated this demand and we need more play-back equipment to serve the students. Lectures are supplemented by small class discussions. In addition to the laboratory sections for science courses, many other courses, such as humanities, foreign languages, and functional English, also include laboratory sections.

Our objective is to prepare the student to take more initiative in taking advantage of the University of South Florida, which is fundamentally an organized opportunity for self-education. We expect each student to go at his own speed, so long as he proceeds at a pace in excess of the minimum which we set.

We shall be studying our role and the scope of our program continuously to determine the services that are needed by the community we serve.

Chapter VI

IN THE PLANNING of Methodist College there was an awareness that the size of the buildings was not the limiting factor on enrollment but rather the amount of funds the college could attract from all of its resources to provide the difference between what the student pays and what it costs to educate him. Having estimated that factor, the ceiling on enrollment was computed and the facilities planning was geared to it.

Planning and Building Methodist College

By

L. S. Weaver

President, Methodist College, Fayetteville, N.C.

THIS IS A report of the procedures and plans which have been followed to date in constructing, organizing, and operating a new private 4-year liberal arts college at Fayetteville, N.C. This institution, which opened its doors in September 1960 to its first freshman class, is owned and operated by the North Carolina Conference of the Methodist Church. It is supported by the church and by the Fayetteville College Foundation, a corporation formed in the city of Fayetteville and Cumberland County for the sole purpose of promoting the interests of Methodist College. The college is coeducational.

Background

Fayetteville is a city in southeastern North Carolina of approximately 50,000 people. It is the county seat of Cumberland County. Fayetteville was one of the early settlements in the coastal plain during colonial days. It is the terminus of ocean shipping up the Cape Fear River from the Atlantic Ocean. In its early days, it served as a port of distribution for water-borne commerce. It was an early seat of government in the State. Its history lies deep in the roots of the early settlement of this part of the Atlantic seaboard.

Adjacent to the city at a distance of some 10 miles is the largest military base in the United States, Fort Bragg and Pope Air Force Base.

As early as September 19, 1955, the desire for a college resulted in the appointment by the Mayor of a Fayetteville Steering Committee to seek the establishment of an institution of higher learning in or near the city. On March 7, 1956, this Steering Committee made contact with Bishop Paul Garber of the Methodist Church and at a subsequent meeting called by the Bishop, the committee presented an invitation to the church authorities of the North Carolina Conference of the Methodist Church to establish a 4-year liberal arts college at Fayetteville, to be operated under the auspices of the church. Following the appointment of a Committee of Investigation by the church, a special session of the North Carolina Conference on May 14, 1956, approved the recommendation of the committee that the church accept the invitation of the Fayetteville Steering Committee to establish an institution of higher learning at the city of Fayetteville.

The Fayetteville Steering Committee proposed to furnish to the church a satisfactory site, water and sewer facilities from the utility lines of the city of Fayetteville, police and fire protection, a capital contribution of $2 million for buildings, and a sustaining fund contribution of $50,000 annually in perpetuity. The Fayetteville Steering Committee in a pledge campaign had secured pledges amounting to $2 million for capital funds and had secured pledges underwriting the annual sustaining fund. Payment on the sustaining fund was not to begin until the fiscal year in which the college opened its doors to students.

In accepting the proposal of the Fayetteville Steering Committee, the Methodist Church agreed to undertake a capital fund campaign to furnish an additional $2 million to the college for buildings and also agreed to provide an annual appropriation for operation of the college which would begin at $35,000 per year when only the planning stage of the college was being undertaken, and which would be increased rapidly when the college opened, to a maximum of $180,000 per year.

Two corporate bodies were brought into being to assume responsibility for this support. The legal name, Methodist College, was adopted and a charter issued by the State of North Carolina in this name on November 1, 1956. This charter provides for a board of trustees composed of 24 members; 6 of these members must be clerical members of the North Carolina Conference of the Methodist Church; 6 must be residents of Cumberland County; three-fourths of the members of the board of trustees must be members of the Methodist Church. Other denominations are represented on the board. The trustees are divided into 4 classes of 6 members each, each class serving a term of 4 years. The college has been fortunate from the beginning in attracting strong men to its board of trustees. The only chairman which the board has had is the present Governor of the State. Another member of the board and of its executive committee is the present President of Kiwanis International. Other members are prominent in Church and State.

The other corporate body, the Fayetteville College Foundation, was incorporated to serve as the responsible agency in providing the support promised from the local community to the college. This corporation has a board of directors consisting of 18 members. Any citizen of Cumberland County is eligible for membership. The membership of the foundation is broadly based, drawing its support from all religious denominations and all segments of the community life. This foundation is charged with the responsibility for collecting the $2 million in pledges for the capital fund and the annual $50,000 sustaining fund. It is an active organization, holding monthly dinner meetings in the college cafeteria, meeting from time to time in joint session with the board of trustees, and furnishing valuable assistance in many lines of endeavor.

Selecting the Site

Several sites were offered to the board of trustees as possible locations for the college. Final selection was made of a 600-acre site fronting three-quarters of a mile on U.S. 401, one of the principal highways entering the city from the north, the property extending to the Cape Fear River at its rear boundary. The land offers a variety of topography. Gently sloping building sites give opportunity for scenic landscaping and also provide good drainage. River bottom land provides an abundant amount of level ground for athletic fields. Wooded areas are available for an unlimited number of faculty housing units. The site is 4½ miles from the center of the city and 2 miles from the present corporate limits. At the rate of growth in the area, it is safe to predict that this particular territory will soon be a part of the municipal corporation. In addition to the main highway referred to, the site is served by several tributary county roads, many of which are hard-surfaced. City bus lines have been extended to the college with the opening of classes. City water and sewer lines now serve the campus.

Several houses were secured with the site, three of which are being used to house college officials.

Architectural Decisions

The first function of the board of trustees was to employ an architectural firm. The Building and

Grounds Committee of the board served as an interviewing group and contacted several firms. Recommendations as to the type of architecture were received from each firm interviewed. Following many weeks of study, the committee recommended that the firm of Stevens & Wilkinson, Atlanta, Ga., be employed for this project. The committee further recommended, on the advice of Stevens & Wilkinson, that the buildings be of contemporary classic design. The board accepted this recommendation.

Perhaps the principal reason leading to the ultimate choice of this firm, in addition to their excellent reputation and their experience in college building and planning, was the fact that this firm is large enough to furnish all the services required for the total project. Beginning with site planning, including location of all walks and roadways, this firm has done the architectural design and all mechanical and electrical plans and specifications. Their estimating department has been remarkably accurate in advising the board as to what each building ought to cost. Thus the officials of the college are able to confer, within the confines of one office building, with all of the people associated with any part of the planning of the total college plant. No consulting engineers have had to be brought in from outside. Incidentally, *Progressive Architecture Magazine* has given a Design Award to Stevens & Wilkinson for their design of campus and buildings.

Immediately following the selection of the architectural firm, the board employed the president of the college and he entered upon his duties on September 1, 1957. The first study to be undertaken was the location of buildings on the 600-acre site. Much time was given in study with the architects before the final selection was made. The basic concept was the creation of a group of interlocking malls, each of which is defined by buildings related architecturally and by changes in elevation to suit the site topography. The buildings of the academic group are arranged around the three interlocking malls.

It was determined that the buildings would be constructed of reinforced concrete with brick panels and with concrete sunscreens suitable to the contemporary design. Special attention was given to a new design in roof construction which allows the building to stand without support by any partition-wall or end-wall. Thus the buildings are adaptable. (See p. 66.) Classrooms can be made any size by merely moving a non-load-bearing partition. There is no wood in the buildings except interior classroom doors. All buildings constructed to date bear an AAA fire rating, and since there is no wood to repaint or to rot, we believe that we will have a very low maintenance factor.

For heat, steam from the central heating plant is converted to hot water in each individual building and heat is supplied by circulating hot water with individual blowers in each radiator. This same system may be used to circulate chilled water during the summer months so that the same mechanical facilities may be used both for heating and air-conditioning the buildings.

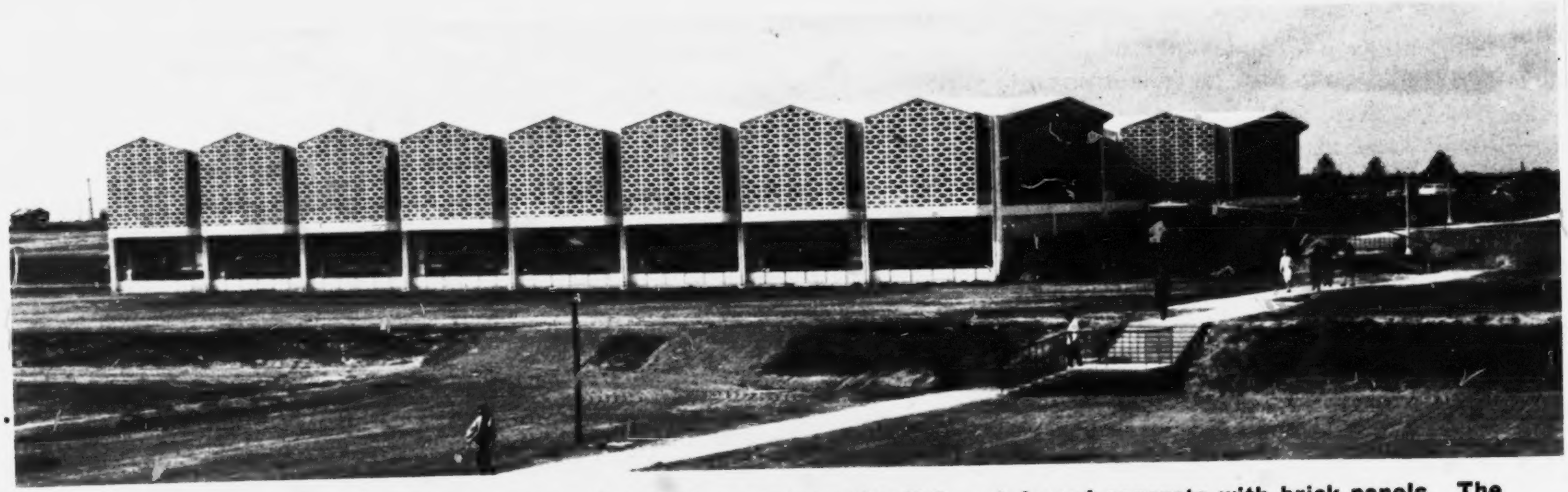
Educational Programs

Methodist College is chartered as a 4-year liberal arts institution. In developing the curriculum, the basic studies of the liberal arts and sciences were accorded a prominent place. Requirements for degrees are based upon a broad course of study in the several areas of liberal education. In addition, the college offers training in three related areas: teacher education, business education, and training of religious workers. The curriculum includes offerings in pre-professional areas such as medicine, dentistry, nursing, law, and the ministry. Students also have available sufficient study in any given area to prepare for graduate study.

The program of studies is organized in six general areas: (1) Languages, (2) Religion and Philosophy, (3) Education and Psychology, (4) Mathematics and Science, (5) The Social Sciences, and (6) The Fine Arts.

We hope by this plan of curricular organization to retain the cohesiveness of the liberal arts and at the same time to prevent fragmentation into small areas which tend to become autonomous and unrelated; also to hold to an absolute minimum the proliferation of courses within departments, which creates one of the greatest economic problems with which colleges have to deal.

Course offerings have been given the first year in the natural sciences, mathematics, foreign languages, English grammar and literature, world



The classroom building of Methodist College, Fayetteville, N.C., reinforced concrete with brick panels. The concrete sunscreens are suited to the climate of this region.

history, religion, and the fine arts. Individual lessons are offered in several areas of music. It is expected to continue these offerings for the second year, advancing to the sophomore level in these fields, and to begin study of philosophy and psychology, and to expand the offerings in social studies. Preengineering and other preprofessional courses will be begun in the sophomore year. Majors in advanced areas will be emphasized when the junior year is reached, at which time intensive work in teacher training and business administration and religious education will be offered.

The college has been able to execute an agreement with the Schools of Engineering of Duke University and North Carolina State College whereby a student may attend Methodist College for 3 years and transfer to one of these engineering schools for 2 years. At the conclusion of the 5-year training program he would receive 2 degrees, the BS from Methodist College and an engineering degree from the Engineering School.

The first freshman class, which was admitted in September 1960, enrolled a total of 135 students during the first semester. These are all commuting students, as no residence halls have been constructed as yet. Contracts have been let for two small residence buildings which will furnish rooms on campus for a limited number of students in September 1961. The sophomore year will be added the second year, the junior year the third, and the senior year the fourth. A program of evening classes is being carried on; it had not been planned originally to begin these classes with the freshman year, but the demand was such that these classes were begun the first year. Enrolled are adults interested in some particular course offering and also a good many young people who find it necessary to work during the day but who wish to take as much work as possible in an evening school, expecting to graduate in perhaps 6 years rather than the usual 4. Evening classes have the same content as regular day classes and carry commensurate academic credit for those who are properly qualified to be enrolled as candidates for degrees. The nearby army base furnishes a large potential for evening class students.

Projecting Enrollment

One of the first questions to be decided was that of how large the college should ultimately be. Optimum size for a 4-year undergraduate liberal arts college was studied. The result of these studies convinced this writer that the most economical operation could be had in such a college, offering a reasonably broad program of liberal studies, if the student body numbered approximately 1,200. Below this number some courses would be offered with enrollments so small as to be uneconomical. Above this number some duplication of facilities would result. A large number is educationally desirable if the demand is there and the service can be rendered, but it is not necessary for the most desirable operation from an economic standpoint. Accordingly, the buildings which have been planned and those so far constructed at the college have been planned to accommodate an ultimate maximum of 1,200 students. The college has no expectation of reaching this size in the near future. While the students will undoubtedly be available and the buildings will be large enough to house such a student body, the limiting factor will be the amount of annual support available to the college. No student pays the full cost of his education. The number of students will, therefore, be limited by the amount of money the college can supply from all of its resources to provide the difference between what a student pays and what it costs to educate him. From the resources presently available, the college can teach about 750 students. To enroll more students than this would require the raising of endowments which, of course, is one of our tasks for the future.

The First Buildings

The next step in our planning was to arrange the floor plans of the first buildings which we would construct. Obviously many questions on curriculum had to be settled before this could be done. This was particularly true in the natural sciences, as laboratories had to be provided for each science to be taught and with sufficient capacity to take care of our ultimate student body. In this connection, we were faced with a decision as to whether we should build temporary facilities which would later be converted to other use or whether we should build the buildings for their ultimate usage from the beginning. The latter course was decided upon. Accordingly, rather than build a few laboratories in a general instructional building, we have built a classroom building and a separate science building. The expensive mechanical facilities required for science laboratories will not be wasted nor will they have to be duplicated in another building later. The classroom building houses the administrative offices and the library temporarily, as well as classrooms and faculty offices. The administrative offices are contained in rooms which will require no conversion when they revert to their original purpose. The same is true of the library. Before any library furniture was purchased, the separate library building was planned and a list of furniture for it was compiled. Furniture for the temporary library was bought from this list so that it will all be usable when the library is constructed. The library is the next building on the building schedule and we hope to begin construction in the near future.

At present, four buildings are being used on the campus. The Classroom and Faculty Office Building was the first building to be constructed and, as indicated above, it presently houses the administrative offices and the library temporarily. Since we have only a freshman class, there is no problem of room at the present time. In fact, we are using less than half of the building this year. We expect to use all of this building by the time we reach the senior year; therefore it is necessary that the library and administrative offices be removed to other buildings by that time. The classroom building has 23 classrooms, including some large lecture halls, and 46 faculty offices, with necessary additional service rooms.

The second building constructed on the campus was the science building. This building contains 4 chemistry laboratories, 4 biology laboratories, 2 physics laboratories, 2 home economics laboratories, faculty offices, 2 lecture rooms, and 1 large lecture hall seating more than 200. This latter is used as our assembly room at the present time.

The third building constructed on the campus was the Student Union Cafeteria. Since all students for the first year were day students, it was felt that this building was necessary to provide a place for these students during the time they were not in class. The first floor contains a large lounge. This lounge is large enough to seat 500 people in folding chairs and will be used for large gatherings on the campus until the auditorium is built. It also contains snackbar, book room, various service rooms, lockers for day students, and first aid rooms for both men and women. The ground floor contains a kitchen and cafeteria seating 600 students in the main dining room. It also has three private dining rooms. We find that the main dining room is being used frequently by large groups in the community and we are glad to have it so used.

The fourth building to be constructed on the campus was the heating plant. In conjunction with this building, we provided an extra wing which houses physical education dressing facilities for men and women. We use these for physical education classes in conjunction with outdoor paved courts and other athletic fields. It will suffice for this purpose until the gymnasium is built. Considerable study was given to the question of what type of fuel we should use in the heating plant. All of our engineering studies showed that the lowest energy cost comes from coal. However, the capital investment and the labor cost of operation was unfavorable to coal as compared with some other fuels. Taking all things into consideration, we decided to use a combination of oil and natural gas. Natural gas is available from a transcontinental pipeline which passes across a part of the campus property. At the present time, we are using oil exclusively due to a temporary shortage of gas, but our boilers are equipped to burn either oil or gas and we expect to use a combination of the two ultimately.

Student Housing

As previously indicated, all of the first-year students commute. Since the college has found it necessary to put its immediately available funds into teaching buildings, it was planned to build dormitories by self-amortizing loans. We had hoped to be able to take advantage of the low interest rate on loans from the college housing section of the Housing and Home Finance Agency of the Federal Government. We found that we were not eligible to apply for such loans until after the college had been in operation for 1 year. Also, since a new institution has no accreditation status, it is required that the college present certifications from three institutions having regional accreditation that these institutions will accept graduates or transfers from this college with no diminution of credit. The writer has been able to secure these three certificates and will submit an application for Federal housing funds for dormitories following the close of the first year's operation. However, our study of this matter showed us that we could not embark on a program of building large dormitories on an amortizing basis even if the money could be secured. To secure self-amortizing loans on such facilities, at least 90 percent occupancy is required. If we had constructed such dormitories prior to the opening of the college for only a freshman class, we could not have filled these dormitories the first year. If by chance we had filled them with freshmen, we could not have accepted more resident students for 4 years until that class graduated. Our problem then, it seems, is to get resident students on the campus in small numbers from year to year so that by the time we construct large dormitories we will have enough students to fill them. To meet this situation, we decided to build small apartment-type buildings each year to house a limited number of students. When we reach the senior year, we will then have on the campus enough students to fill a dormitory and will convert our apartment buildings to faculty and married student housing. This seems, at the present, the best solution for a new college which enrolls only one class at a time and has to depend on student fees to amortize its housing loans.

Utilities

Locations for a total of 13 buildings have been plotted on the site and preliminary plans drawn. The original grading contract included the grading for all of these buildings. The contract for campus utilities included utilities to serve all of these buildings. Storm drainage, central heating lines, water, sewer, electricity, and telephone lines have all been installed according to a master plan to serve future buildings. Grading has been done for buildings to be constructed in the future. Accordingly, when a new building is constructed, it will not be necessary to dig up the campus or to destroy walks and driveways to service these buildings. Connections for all of these utilities are already at each site. We can proceed now with landscaping (which has also been based on a master plan) without having the landscaping destroyed by future construction. This, of course, required the outlay of more money underground than would have been needed for the four buildings which we are presently using. However, this investment will turn out to be economical in the long run.

Building Contracts

The question of the manner of taking bids and letting contracts inevitably comes up in any building program. The law governing public construction in this State requires that bids be taken in four categories: general, heating, plumbing, and electrical. This has been the procedure in constructing school buildings for a great many years. However, private institutions are not subject to this law. Investigation revealed that only one other State has such a law and that many States follow the policy of letting contracts under a unified bid. The architectural firm felt that the placing of responsibility on one reliable firm would have considerable advantage. After discussion by the building committee of the board of trustees, it was decided to follow this recommendation of our architects. All contracts to date have been let on a unified bid except in the case of the boiler plant, where the mechanical contract was really the main contract and the boiler house building was separate. In all other buildings, the general contractor was made responsible for mechanical subcontractors.

Equipment

The purchase of equipment for the buildings has been handled in the college business office. Specifications were prepared and several reputable firms were invited to submit bids. Equipment has been purchased more on quality than on price and it is believed that this is economy in the long run. Equipment has also been purchased with a view to uniformity. This is advantageous in the case of repair or replacement.

Operating Costs

As this is being written (the midterm of the first year's operation), the four buildings with which the college was opened, and the various subsidiary contracts, have cost a little more than $2,500,000. The Fayetteville Foundation has collected a little less than $900,000 of their $2 million in pledges, and the Methodist Church has collected a little more than $750,000 for our account. The church campaign was held later than the local campaign. The remainder of our building cost so far has been met by short-term bank loans.

The Fayetteville Foundation is furnishing $50,000 in sustaining funds for this year's budget. The Methodist Church has been furnishing the operational funds ever since the president's office was opened in September 1957. The present appropriation for this fiscal year from the church is $56,000. Thus the college has for its first year's operation $106,000 in addition to student fees and incidental gifts. Church appropriation for operation will be increased for the next school year. While the funds that the college has been raising, apart from its two main supporting bodies, have been used largely to supplement the building fund, some money has been contributed and earmarked as endowment. The present value of the endowed funds of the college and other invested funds is about $90,000.

The college has received several corporate gifts but has received no help as yet from educational foundations. Practically all of these foundations, particularly the larger ones, operate under by-laws which state that they will accept applications only from accredited institutions. Since a new institution is neither accredited nor nonaccredited, it has not been possible to qualify for such help. Subsequent comments will be made on accreditation.

Staff

The administrative staff of the college began with the employment of the president in September 1957. His immediate duties were concerned with building plans and financial arrangements. As these have moved forward and the question of additional administrative help has presented itself, the administrative staff has been gradually expanded. Almost 2 years after the president assumed office, a Director of Public Relations and Development was employed. This was at the beginning of the campaign for funds throughout the church and the college was called upon to furnish much promotional material for this campaign. The director of public relations has worked largely in the area of the Methodist Church. He has prepared a quarterly bulletin and news releases, and now that the college is open, does a good deal of work in the area of student recruitment.

Some 9 months prior to the opening of the college, a comptroller was employed. He immediately began purchasing equipment for the various buildings and employing the nonprofessional staff.

Six months before the opening of the college, a dean was added to the administrative staff. Before his arrival, the president had prepared and printed the first catalog. The dean assisted in the completion of the faculty for the first year's operation and began the detailed scheduling of classes and gave attention to other internal administrative matters which were necessary before the opening of the college. He served as admissions officer until the admissions officer was employed 3 months before the opening of the fall term. These 5 people presently constitute the administrative staff.

For the freshman year, eight full-time and three part-time instructors are employed. The instructor in Bible serves as the college chaplain and is chairman of the Community Council, which is a joint faculty-student group responsible for campus activities. This is expected to lead into a student government organization by the time the senior year is reached. Five of the instructors on this first faculty hold the doctor's degree.

It was anticipated that in an area of teacher shortage, securing personnel would be very difficult; however, the number and competence of the people who have been interested in teaching and working in a new institution have been an agreeable surprise. It is true that for the first year the faculty has been employed in only a sufficient number to teach the freshman class and difficulties in this area may increase as needs expand. Present indications are that it will be possible to meet the needs for the second year with competent and qualified people.

It is anticipated that the number of students in the second year's class will increase somewhat in the day student patronage and that these will be augmented by a limited number of resident students. The staff is prepared to teach a total of 200 students in the second year's class and the acceptance will be limited to that number. There is no wish to grow more rapidly and in greater numbers than can be assimilated in an orderly fashion. There is no lack of concern about the number of students who will inevitably demand admission to colleges in the next few years, but there is more concern about the quality of the program which will be offered to those for whom responsibility is assumed. Two guiding precepts are that the college shall be an institution of academic excellence and shall be Christian in concept.

Student Activities

Student activities for the first year have been limited to freshman class activities, student participation on the faculty-student community council previously mentioned, and membership in the student Christian association and the glee club. During the spring term of this first year it is planned to enlarge the student program of activities for those who have demonstrated during the first semester that they are academically qualified to devote time to such activities. These will include publications, dramatics, debating, and various social activities.

Summary

What does the future hold for this institution? As previously discussed, the physical facilities which have been provided so far will accommodate an ultimate total of 1,200 students. The schedule of construction proposes to build the library next. It is hoped to start it within the next few months. Following the library, the administration building and the chapel will be built, followed by the auditorium-fine arts building and the gymnasium. This is the program of construction from funds which are expected. During this time more housing units will probably be built, including dormitories, from borrowed funds as the need arises. Of course, dormitories will be expanded at any time upon proven need. The ultimate objective of 1,200 students is predicated on 600 resident students and 600 day students. This would require four dormitories housing 150 students each. Studies convince us that 150 students is the minimum number that ought to be housed in one dormitory. The various auxiliary rooms that must be provided for resident students, particularly social rooms in a girls' dormitory, cannot be economically provided in smaller dormitories.

It cannot be too often repeated that the growth of the college will be limited not so much by its physical facilities or its student patronage as by its ability to secure operational funds to cover the difference in cost between what a student pays and what it costs to educate him.

Previous reference has been made to accreditation. This is a vital question for any beginning institution. Most accrediting agencies have set up their rules and regulations with the idea of separating the good from the bad among existing institutions. It seems not to have occurred to some of these agencies that there will be new institutions. The College Conference in this State requires that an institution graduate a class and be inspected 1 year later before it can apply for membership in the conference, which is the de facto accrediting agency for colleges within the State. Thus a new institution faces 5 years of operation before it can meet this requirement, even if all criteria and other stipulations are met from the beginning. The regional accrediting agency, the Southern Association of Colleges and Secondary Schools, requires 7 years. As noted earlier, financial assistance from large foundations is largely geared to regional accreditation.

There are, however, some devices that a new institution can use to assure its students of their acceptance on a transfer basis or to graduate schools of other institutions. Mention has been made of the joint cooperative program in engineering between Methodist College and the Engineering Schools of Duke University and North Carolina State College. Also indicated was the fact that the college has been able to secure certification from three regionally accredited institutions stating that Methodist College students would be accepted by transfer to any of these institutions. These certifications have enabled the college to be approved by the Veterans Administration for training of students under the G.I. Bill and to qualify for student loans under the National Defense Education Act. It will also enable the college to apply for dormitory loans from the college housing section of the Housing and Home Finance Agency of the Federal Government after 1 year's operation.

Various accrediting agencies are cooperative and helpful in furnishing detailed statements of the criteria which an institution must meet in order to be ultimately accredited by them. The college has operated by these criteria from the beginning and anticipates no difficulty in future accreditation when the required time has passed. This matter is of great importance to a new institution and to the students who attend it, and it should be given much care and study.

Building an institution from the ground up is a rewarding experience. Three years ago what has become Methodist College was a cotton field. There is some satisfaction in having undertaken to create an institution and watching it progress from day to day, even though progress is often slow and always less than one could wish. Those who would attempt such an undertaking can be assured that their work will be often frustrating but never dull.

Chapter VII

ONE WAY TO ACHIEVE growing space is to move the college from its rigid girdle in town to a new and spacious site in the suburbs. To do so involves a tremendous amount of expert planning. One feature of the move by San Francisco State College was the setting of priorities for the order of completion of the various new facilities so that the move could be made gradually over a period of years. The start of the move could not wait until all was ready on the new campus and not all could be made ready at once.

Moving San Francisco State College to a New Site

By

GLENN S. DUMKE
President, San Francisco State College

JOHN S. BUTLER
Dean of Campus Planning,

ARTHUR J. HALL
Director, of Institutional Research,

Background

Moving a college or university from one site to another is a major operation. It involves real estate negotiations, zoning problems, transportation complexities, fiscal difficulties, curriculum "impossibilities," faculty protests, and a certain amount of politics. It is, in fact, almost easier to disband the old campus organization and start a new one afresh. However, items such as faculty tenure relationships, institutional traditions, the necessity for continuing student programs, and similar hurdles dictate otherwise. Because of the tremendous growth of certain higher educational institutions, moves will continue to take place. It should be helpful, therefore, to relate the experience of one institution, San Francisco State College, in its shift of location from downtown to the suburbs.

In 1954 San Francisco State College completed the move to its present location. In a sense this move started in 1939 when the first parcel of land for the present campus was purchased. The actual move of instructional functions started in 1950 when the first permanent building was completed on the new campus, but not until 1954 after the ninth major building had been completed was it possible for the college to abandon completely the "old" campus it had occupied in the heart of San Francisco since 1906.

Factors Causing the Move

The factors that led to a decision to relocate the college were the woefully inadequate facilities and the severe space limitations of the former campus, located in downtown San Francisco off upper Market Street. Of the three major instructional buildings two were steel reinforced structures. The third and largest building was a three-story frame edifice, erected shortly after the fire of 1906, which had been annually condemned by city and State authorities. In addition to these buildings there were a gymnasium, demonstration elementary school, several "temporary" classroom buildings, tennis courts, and athletic fields. All of these were located on a hilly 5-acre site. The campus was surrounded by apartment houses and was near the business section of the city. By 1940 the college, with great difficulty, was handling 2,500 students on this campus. Ten years later, when the college was about to start its move to the new site, the post-war flood of college students had complicated the problem of space to an even more serious degree. To meet this crisis the college had rented every available building in the immediate neighborhood. These included an educational annex of a nearby church, the pipe organ and assembly hall of another; the kitchen facilities, auditorium, and offices of a third church that had been condemned for regular purposes but which was being used as a settlement house; similar facilities in a fourth church several blocks away; and limited facilities in still another. The Salvation Army gymnasium was used for physical education classes. Aquatics were taught in the city's Y.M.C.A. and Y.W.C.A. pools.

Before describing the move itself, it is necessary to outline briefly the State educational structure of which the college is a part. Unlike a private institution, which has certain freedom of action, a public college is constrained at every turn by relationships— to the State, its board, certain State agencies, and finally to its own local constituency. San Francisco State College was a part of the California State College System which, like any rapidly growing system, was beset with certain complexities of organization and operation. In order to understand some of the difficulties of the move, the agencies controlling the college must also be understood.

History of the College

The present California State College System originated as a collection of normal schools set up primarily to train elementary teachers. The first normal school was established in San Francisco in 1862. By 1900 four normal schools were established. One, in Los Angeles, later became the University of California at Los Angeles, while the other three are now parts of the California State College System. Between 1900 and 1921 four more teacher-training institutions were established. When a 4-year curriculum was established in 1923 the institutions were renamed State Teachers Colleges. With further broadening of the curriculum in 1935 all State Teachers Colleges became State Colleges which were authorized to give courses for students in fields other than teacher education. By the time this last change of name took place there were seven State colleges. At present the system consists of 16 institutions, some small, some large, all different.

The original curricula, confined to the training of elementary school teachers, were expanded for secondary school teachers, for school administrators and supervisors, and little by little for many other occupational fields and for almost the whole scope of liberal arts training. Today only a fraction of the graduates of the California State Colleges go into teaching as a career. All of the State colleges are authorized to grant the master's degree, as well as baccalaureate degrees, not only in teacher training but in virtually all of the other academic fields. Several of the colleges have Departments of Engineering and three have Departments of Agriculture.

San Francisco State College came into existence in 1899 as a normal school for the training of elementary teachers. It was the first normal school in California and one of the first in the United States to restrict its students to those who had completed high school. The first site of the institution was in downtown San Francisco on Powell Street between Clay and Sacramento. The great fire of 1906 destroyed the buildings, and the school was then housed temporarily in rented quarters in Oakland. In 1906 the State purchased two blocks of land bounded by Buchanan, Haight, Laguna, and Hermann Streets. These 5 acres served the institution until the move to the present campus, which move is the subject of this chapter.

President Frederick Burk had made elaborate plans for building new facilities on the old campus, but when, in 1927, Dr. Alexander C. Roberts took office, he began immediately looking for a new site, for the college was growing far more rapidly than anyone had anticipated. To illustrate the increasing difficulties, shortly after President Roberts assumed control the college took in its first large group of male students. Athletic fields became a necessity. The State rented, with an option to buy, the old Recreational Ball Park several blocks away on Valencia Street. Here the staff developed a football field and crude dressing quarters. Gymnasium facilities for men were distributed between two basements on the old campus.

Before any site could be found, the country was plunged into the depths of the great depression. Student population boomed, but financial resources dwindled. At the end of the administration of Governor Merriam, in 1938, the college and the State board were forced to make a basic decision. Should the college stay on its present 5-acre site, build many-storied buildings, exercise its option to purchase the old Ball Park, and hope to secure money to condemn adjacent land; or should it abandon the old site and purchase a new one? An allocation of $400,000 recommended by Governor Merriam and approved by the legislature, forced the decision in favor of a move.

For more than a year the few possible sites remaining in San Francisco large enough to accommodate a college of 3,000 students were considered. The old county jail site was adequate but the city at that time refused to give it up. It is now a part of the campus of San Francisco City College. An attempt was made to get the Army to give up a portion of the Presidio. This also failed. The undeveloped area south of the city limits was explored, but distances were so great and surface transportation so limited that these prospects were abandoned. There was a suddenly awakened desire of San Francisco legislators to keep the college within the city limits.

Finally, in 1939, the college received an offer of about 57 acres of land on the shores of Lake Merced in the southwest portion of the city. The area to the north and south had been purchased by two large corporations with the intent to build rental property and shopping districts. It is quite likely that their help was of considerable value, for the first name given to this residential development was College City. Later the name was changed to Stonestown for the land lying north of the present campus, and to Park Merced for the land lying to the south.

At the time the site was purchased the country was still in the throes of the depression. Federal relief funds and labor were used to clear the 57 acres of brush, to fill an enormous ravine, and to do a tremendous amount of grading. This cost the State nothing.

When President Roberts retired in 1945, the campus consisted of a filled-in ravine and an area of leveled sand dunes. The Nation had just emerged from World War II. Governor Earl Warren had accumulated a large post-war building fund, but the shortage of materials, together with their high cost, seemed to prohibit any start on an extensive building program. A dedication ceremony was held on the new campus, but the only buildings were on paper—those which President Roberts had drawn and redrawn in his office. During the war the State Division of Architecture had taken these drawings and created some small-scale schematic sketches, but the building of a new campus had to await the coming of a new president.

In 1945 Dr. J. Paul Leonard was appointed to head the institution. During his first year he formed a building committee and began to bring pressure upon State authorities for the purchase of additional land to augment the original 57 acres. In 1945 the college, emerging from the war, had seen its enrollment drop from 2,500 to a bare 800. Within 3 years, however, the enrollment increased again to about 2,800 students.

Fiscal and Educational Control

Until July 1, 1961, the California State Colleges and their forerunners were a part of the public school system of the State. As such they were under the policy control of the State Board of Education, the same board that controls public elementary and secondary schools. The chief administrative officer was the Superintendent of Public Instruction, elected by popular vote, who also had the title of Director of Education. As the system grew, the Director of Education delegated active administration of the system to an appointive Associate Superintendent in charge of State Colleges and Teacher Education. Presidents of State colleges were nominated by the Director of Education and confirmed by the State Board of Education.

Fiscal control both in terms of operational and capital outlay budgets was vested in the hands of the State Department of Finance. The Director of Education compiled the budgets submitted by each institution and submitted them to the State Director of Finance for inclusion in the Governor's Budget. The action of the legislature on the collective and individual budgets was final. It should be pointed out that these budgets were all of the line-item type and that it was within the power of the State financial officers to approve each individual item. This required each State college and the Department of Education to draw budgets in conformity with what they thought the State Department of Finance would approve.

As the system grew, the colleges, the Division of State Colleges and Teacher Education, and the State Department of Finance were required to cooperate in the determination and approval of various standards, procedures, and formulae that would be acceptable to all. Thus there emerged a procedure for estimating enrollment, an elaborate set of standards for budget purposes, methods for estimating capital outlay needs, and a procedure for processing architectural planning with the State Division of Architecture.

Requests for capital outlay projects at each State college had careful processing. Each college established its priority of projects on a 5-year basis, together with all the required types of justifications. Calling upon the State College Planning Office for advice, the Associate Superintendent in charge of State colleges then drew up a 5-year building program for all of the State colleges as a unit. Priority numbers were assigned on a total State college system basis in terms of relative needs as seen by the Associate Superintendent. The consolidated 5-year building program was then submitted each year to the State Department of Finance and the Legislative Analyst. Theoretically the Department of Finance indicated what projects it would approve each year, then submitted them to the legislature, where the Legislative Analyst scrutinized them. Actually, however, since Finance and the Legislative Analyst worked together, the projects that were submitted each year to the legislature were usually those that were supported by both agencies. In spite of the complexity of this process it was seldom that the legislature disapproved any capital outlay projects that came to it, except when funds were inadequate. At such times the priority order was usually maintained, and the only action taken was that of eliminating in order the lower priority items until the estimated cost of the remainder came within the financial resources of the State.

Before each year's capital outlay projects were actually included in the Governor's Budget, one further step was taken. Using the detailed specifications submitted by each college for each capital outlays project, the State Division of Architecture drew preliminary plans and arrived at cost estimates for every project. It was this carefully derived cost estimate that determined the exact appropriation to be requested for every new building or facility.

On July 1, 1961, the system and procedures of control went through a wholesale change. The State colleges ceased to be a part of the public school system and came under the policy control of a new board, the State College Board of Trustees, most of the members of which were appointed by the Governor of the State; the other members are ex officio. The new board appointed a Chancellor to administer the State College System, and with his recommendations, the necessary specialized staff. The State Department of Finance lost its detailed control over each item in the budget of the various institutions and was confined to approval or rejection of major budget requests. The right to plan or supervise the planning of all capital outlay projects was taken from the State Division of Architecture and handed over to the new Chancellor and his staff; in effect, therefore, the Chancellor and his staff may select private architects or contract with the State Division of Architecture. The power of the Legislative Analyst's office was confined to investigating and recommending completed budgets, whereas earlier this office actually participated in the process of budget formation.

At the time this chapter is being written it is too early to determine how these changes will work out. The action that will be taken by the State Department of Finance and by the office of the Legislative Analyst in exercising control of proposed budgets is not fully defined. However, this "Master Plan," as it is called, has, through implementing legislation, given the State colleges of California a board of their own with real power and the opportunity to achieve genuine academic maturity for the individual colleges.

Steps in Planning

Starting in 1954 college facilities were planned only for "regular" students under the assumption that they were largely concentrated in classes 8 a.m. to 5 p.m.; part-time students were presumed to take only classes 5 p.m. to 10 p.m. and, hence, as needing no additional facilities. The above average proved incorrect. It was found that many regular students took classes 5 p.m. to 10 p.m. and some part-time students attended classes 8 a.m. to 5 p.m. The basis for providing facilities was therefore revised. They are now planned to care for the total FTE (full-time equivalents) 8 a.m. to 5 p.m. The 5 p.m. to 10 p.m. students get no extra consideration in terms of facilities, and, in fact, need none. All utilization standards and studies are now based upon the FTE enrolled 8 a.m. to 5 p.m. Extension classes are currently not permitted on campus and are not a part of the above FTE.

Research

There have been numerous studies on higher education in California under legislative authority as well as others by the institutions themselves and other State agencies. For the past 20 years San Francisco State College has made continuous studies of its capital outlay needs. There were five major studies conducted by California between 1930 and 1960 on the State's higher educational system and its future needs, that are of particular importance to this chapter.

1. State Higher Education in California[1] (1932)

The most important recommendation in this report dealt with proposals to raise tuition rates and suggestions for better control. It was limited in scope and practically devoid of any influence upon the State's system of higher education. However, from this report the college and the State Board of Education obtained the idea that the old campus in the heart of the city was inadequate and that a new campus capable of handling 3,500 students should be built. At this time virtually all classes offered on the campus were scheduled 8 a.m. to 5 p.m. and the number of students closely approximated the FTE. Since that time an extensive evening program has been developed.

2. A Report of a Survey of the Needs of California in Higher Education[2] (1948)

The scope of this study, sometimes known as the "Strayer Report," included an evaluation of current and future needs of higher education; an analysis of the higher educational need of each area of the State for university, State college, and junior college campuses; the organization of publicly supported higher education; and the manner of support of public higher education in the State. This report has exerted great influence on the development of higher education in California.

Specifically, this report made the following recommendations that influenced development of the plans for a new San Francisco campus:

(a) Reaffirmed the need for a new campus but one with facilities that would ultimately care for a maximum of 5,000 students, or, in essence, 5,000 FTE day students. It was the judgment of the writers of the report that this maximum would not be reached until 1965. It it significant that the college reached an enrollment of 5,074 FTE in 1955 and the number of students now projected for the college in 1965 is 8,800 FTE day students.

(b) Recommended that each State college be allocated a region to serve.

(c) Prepared a set of utilization standards that were to govern the number of classrooms in each institution.

(d) Proposed reorganization of procedures in planning facilities.

---

[1] Suzzallo, Henry, *and others*, *State Higher Education in California: Recommendations of the Commission of Seven*, June 24, 1932. Sacramento: California State Printing Office, 1932.

[2] Deutsch, Monroe E.; Douglass, Aubrey A.; *and* Strayer, George D. *A Report of a Survey of the Needs of California in Higher Education.* Berkeley: University of California Press, 1948.

3. A Restudy of the Needs of California in Higher Education[3] (1955)

The *Restudy* was the most comprehensive of the legislative studies and covered the same areas as the Strayer Report. Functions of the State colleges were further defined. Utilization standards were more clearly stated. The size of the facilities for San Francisco State was increased to accommodate 9,000 FTE day students by 1965 (10 years later).

4. A Study of the Need for Additional Centers of Public Higher Education in California[4] (1957)

This report concentrated its attention upon detailed recommendations for specific additions to both the State college and university systems. The enrollment projection to be used for planning facilities at San Francisco State was increased to 9,900 day students, with a modified projection of 8,300 day students based upon possible development of additional State colleges in the area.

5. A Master Plan for Higher Education in California. 1960–75[5] (1960)

This most recent report requested by the legislature and financed entirely from the budgets of the university, State colleges, and junior colleges, was directed primarily toward the examination of State fiscal resources and the question of how adequate educational opportunity for California youth could be maintained. Procedures and utilization standards relating to capital outlay were again modified. Higher admission standards as well as broader functions for the State colleges were urged. A State College Board of Trustees with broad fiscal powers was established. This study estimated San Francisco State College's projected enrollment in 1975 as approximately 10,000 FTE day students.

Impact of the Studies on the College

As soon as a site was purchased in 1939, the San Francisco State College administration and staff set to work in an attempt to anticipate specific needs in the way of buildings and other facilities that would be necessary to care for a student body of 3,500. At that time there were no recognized techniques or standards for determining what facilities would be necessary. There seemed to be plenty of time, for the depression still weighed heavily upon the Nation and there was no immediate prospect of available State funds. A large building committee was appointed from the staff, enrollments were projected, and the committee went through years of trying to work out a plan and determine the number and types of buildings that would be needed.

The depression lifted gradually, but before there was any prospect of securing the necessary funds, World War II broke out. Governor Warren declared a moratorium on all State building projects except those that were deemed necessary to the war effort. Because of the drastic drop in the work of the State Division of Architecture, the time of several architects was made available for preliminary planning. Several campus master plans were projected but without cooperation with the college. Consequently there was no sound analysis of the educational problems to be solved.

By the end of World War II the State Division of Architecture had completed the working drawings for two buildings. The first was a complete gymnasium and power plant to serve a college of 3,500. The second was the first unit of a science building. Rapid growth caused problems even at this early stage. When the planning for the present campus was started in earnest, it was known that the college was to be built for 5,000 instead of 3,500 students, but the State authorities decided not to scrap the plans for the 2 buildings mentioned above. These buildings now stand on the campus. Both have been added to, but the college staff agrees that the augmentations would be far more functional today and precious site would have been saved if the original buildings had been redesigned when the campus was expanded for a larger enrollment projection.

The war ended in 1945, but it was another 2 years before the State was ready to provide funds for extensive additions to its institutions of higher education. Governor Warren asked that a comprehensive study of the State's needs in higher education be made before the State embark on a program of expansion, and the above-mentioned Strayer Report resulted.

---

[3] McConnell T. R.; Holy, T. C.; *and* Semans, H. H. *A Restudy of the Needs of California in Higher Education.* Sacramento: California State Department of Education, 1955.

[4] Semans, H. H. *and* Holy, T. C. *A Study of the Need for Additional Centers of Public Higher Education in California.* Sacramento: California State Department of Education, 1957.

[5] Coons, Arthur G. *and others. A Master Plan for Higher Education in California, 1960–75.* Sacramento: California State Department of Education, 1960.

The Strayer Report acted as a trigger to start off a vast expansion in facilities for higher education in the State college and university systems. At San Francisco State College another building committee was established. Surveys were made and needs for 5,000 students were projected. Unfortunately, however, there was no centralization of planning authority and responsibility. The committee and its subcommittees were unable to come to agreement. The same thing happened in other State colleges. Months passed and nothing was ready to go on the drawing boards. Governor Warren acted. He declared that unless some system were evolved that would bring unified and cooperative action from the colleges, the Department of Education, the Department of Finance, and the Division of Architecture, he would veto every college building appropriation bill passed by the legislature.

Accordingly, in January of 1949 a committee made up of representatives from these agencies worked out what is believed to be the first comprehensive system of anticipating and planning capital outlay needs for State-supported higher education. In each State college an executive dean was placed in charge of the building program. In the State Department of Education there was established a State college facility planning office. The Division of Architecture selected personnel and worked out a system for cooperative work with the educational agencies that would lead (1) to preliminary plans and cost estimates for new projects, (2) to the securing of adequate appropriations from the legislature, and (3) to the actual planning of the facility.

When the office of the executive dean at San Francisco State College was given charge of directing its building program the institution had about 2,800 students. Its curricula were concentrated largely in the training of elementary and secondary school teachers, supervisory and administrative school personnel, and various specialized secondary teachers. At the same time there was an active 2-year program taken by many students who transferred to other institutions to complete their training for secondary school teaching. The college also had a large number of students who were following a liberal arts curriculum. While many of these students completed 4 years at the institution, the number of those who transferred before that time, and the heavy rate of attrition stemming from the relatively low admission standards, provided a student body that was about 80 percent lower division in nature. During the first year of the planning program it became clear that this and other State colleges would branch out into many additional types of applied curricula and broad programs of liberal education in the arts and sciences, with the right to grant the master's degree.

The task before the college then was to anticipate the curricula that would be offered on the new campus, to start with the needs of 2,800 students and project them to the needs of 5,000 students, and to work out a detailed set of specifications for every building and every facility to be constructed, step by step, until the college grew to its 5,000 student maximum in the year 1965. It became apparent at once that 56 acres were inadequate. Immediate steps were taken to obtain more land. In 1949 additional land was purchased so that the campus area was increased to 93 acres.

By 1950 the college was feeling its way in its planning procedures, beset on one hand by the ambitious dreams of an impatient faculty that had waited many years for adequate facilities, and on the other by the regulating and controlling agencies of the State. Always in the background were the ambition of junior colleges seeking senior college status and the firm insistence of the university system that the growing State colleges in no way infringe upon its domain. If the planners rejected some of the ambitious dreams of their college they were criticized by their faculty colleagues. If they went too far in planning facilities for curricula and functions not yet explicitly assigned to them—especially when these curricula and functions duplicated what the university system thought to be its exclusive domain—then the college planners faced rejection of their capital outlay proposals by Sacramento. In general, however, the facilities planned during this period were flexible enough in nature so that, to this date at least, any function already added or any contemplated in the near future will be adequately provided with facilities. In short, this college and others were so planned that they can care for their teacher-training functions, a large number of 4-

year professional and preprofessional curricula, and a number of liberal arts curricula, including 5-year programs leading to the master's degree. As a matter of fact, work at the doctoral level could be added in several fields without more than minor modification of some existing facilities and appropriate implementation of faculty time, library resources, and research equipment.

The statistical methods used to anticipate actual specific needs in the way of facilities, the financial procedures through which the colleges had to pass in securing appropriations, and the actual architectural planning of the facilities were all worked out within the framework of a rather complex State system of balances and controls. A brief explanation of these methods and procedures is given later.

Relating Physical Facilities to the Educational Objectives

Between 1948 and 1955 an extensive set of standards and procedures was worked out so that patterns of relationship of physical facilities to educational objectives were applied to all colleges more or less equally. Under the direction of the associate superintendent uniform utilization standards were worked out; that is, each lecture room or each laboratory classroom was supposed to carry an average of so many hours of classes a week with an average use of a certain percentage of the stations in each room. This meant that if a given proposed building was to be designed to carry an X number of full-time student equivalents in lecture and a Y number of full-time student equivalents in laboratory classes the utilization standards showed exactly how many lecture room stations and how many laboratory room stations were to be provided. There were policies on the number of faculty people to be housed in a single office. There were standards to determine how big a classroom should be for any given number of students, whether for lecture or laboratory. There were standards on types of window shades, types of floor coverings, and literally dozens of other details. Once the anticipated number of students to be served was known, various formulae were used to establish the number of stations in library reading room areas, stack areas, and other requirements. Other standards determined how large the cafeteria should be both in terms of the number of seats and in estimate of the kitchen facilities. With each passing year the framework of standards and procedures was extended.

The executive deans met twice a year, and their actions, as well as the actions of the State college presidents and their superiors in Sacramento, became increasingly responsible for the refinement of these standards and procedures. The presidents' attitude was that if the fiscal authorities of the State were going to use measuring devices on the facilities requested, then the executive deans, with their practical knowledge, should play as strong a role as possible in the formulation of these standards and procedures. Wisely the executive deans invited representatives from both the Department of Finance and the Office of the Legislative Analyst to meet with them. In all these procedures the State Division of Architecture played a prominent part.

To one who did not observe the careful evolutionary development of these standards and procedures the system must have seemed hopelessly rigid and restrictive. This actually was not the case. For one thing, each of the State colleges was treated exactly like every other. It was difficult for an institution to get more than its share by the exercise of political power. As a matter of fact, few States have developed a system that strove so sincerely to remove the construction of educational facilities from the realm of politics. As the fiscal authorities became better acquainted with the educational needs of the various colleges, they became more willing to approve the facilities necessary to house the educational functions. Money of course was always a factor. While the buildings were designed to be flexible enough for future changes, they were severe in their design. Little was spent to provide exterior beauty, wide corridors, and spacious stairways. Unlike university buildings, State college architecture was strictly functional.

Selecting the Architect

Until July 1, 1961, the State Division of Architecture designed most State college buildings and exercised close supervision over others. When the load on the division was more than it could carry, it was the policy of the State to bring in private architects to carry the surplus load. They had to conform to all existing standards and came under the general supervision of the division. Of the 21 major buildings and major additions to buildings on the campus of San Francisco State College, 17 were designed by the Division of Architecture and 4 by outside architects retained and supervised by the division. One architect was assigned to each State college campus who exercised general supervisory control over all of the projects on that campus. The selection of this man and the selection of all other architects and engineers were made by the Division of Architecture itself. Legally, and almost always in practice, no college could select its own architect or architecture. Actually, however, the Division of Architecture was as generous as possible in assigning to a given college those architects most acceptable to the college. Every effort was made to keep certain architects on certain campuses rather than to have numerous staff changes. As a result, most of the architects working on a given campus had become acquainted with it, knew its problems, and were sympathetic in trying to preserve its homogeneity and style. At the start of the vast expansion in the State college system between 1948 and 1950, the State Division of Architecture had very few designers with experience in college building. Ten years later, however, almost every architect in the division had extensive background in designing college facilities.

Selection of a Site

It has already been pointed out that the college had little choice in the selection of its new site. It can almost be said that the campus occupied the last block of land in the city that was at all adaptable for a large educational institution. Fortunately, however, the site was a fine one in almost every respect except adequate size. Currently, new State colleges are built only where campus sites of 250 to 300 acres are available.

At the time the first part of the site was purchased the ultimate limits of the campus were almost determined, not because there was no additional empty land in the area but because land costs were extremely high or other commitments had been made for its use. It was possible to add only 37 additional acres, producing the total of 93. As this is being written, virtually all of the empty space for miles around is now built up. The attempt made to obtain a portion of nearby Fort Funston, a former military installation placed on the market by the Federal Government, failed, and San Francisco State College has dim prospects for future territorial expansion.

City zoning restrictions did not operate on State property, but their effect handicapped the college in certain important ways. To the west an extensive city-owned golf course, a city-owned lake that provided reserve water supply, and the Pacific Ocean made it impossible to find locations for sorority or fraternity houses and the usual extensive number of rooming and boarding houses that surround most colleges of this size. Immediately to the north and south were two large housing projects where zoning restrictions limited apartments to single families. Beyond these two projects on the north and the south and a half mile to the east, zoning restrictions also prohibited the construction of sorority and fraternity houses and boarding and lodging houses for students. Because of these same zoning restrictions there was little possibility that within walking distance of the campus there would be any privately owned bookstores, restaurants, or any of the other usual student haunts common to many college neighborhoods.

Public transportation was a problem. The new campus was on the edge of the city, and although it was served by both streetcars and buses, the schedules were such that many a student living nearby spent as much time on public vehicles as would be required by another who drove a car 25 or 35 miles.

When work was first started on the campus it was covered with rough brush and several small stands of native Monterey pine and cypress. Almost all of the original trees were saved. Practically all additional trees planted since are of the same type because only these two varieties seem to be able to withstand the windburn to which they are subjected by prevailing ocean breezes. Some of the early landscaping featured shrubs that had been saved from the World's Fair on Treasure Island in San Francisco Bay in 1940.

Construction of all buildings must be such as to meet the hazard represented by the great earthquake of 1906. The main San Andreas rift runs north and south less than 2 miles beyond the campus. This means that all buildings have to be built so as to meet the provisions of the Field Act passed by the State Legislature after the disastrous Long Beach earthquake of 1933. While every attempt is made to achieve a flexible design, each structure must be anchored against earthquake twist by balanced shear walls. Because of careful and solid construction, the moderately severe temblor of 1957 did relatively little damage. The only exception was the library, which was built to carry an immediate addition. Shear walls were omitted from the west side, and as a result the vibration accompanying the earthquake caused about $25,000 worth of superficial damage.

The site and its location within the city provided additional features:

1. A sandy slope resulting in excellent drainage and relatively inexpensive excavations for buildings.
2. Public utility services easily extended from adjacent lines to the edge of the campus at no cost to the State.
3. Fire protection provided by the city.

Development of the Campus Master Plan

There are certain logical steps that an institution of higher education should consider in the development of a master plan for a new campus.

1. Determine the ultimate size and scope of the college in terms of number of students to be served and the spread of curricular offerings. These will more or less dictate the number and arrangement of instructional facilities.
2. Determine the ultimate scope of the program not directly related to the instructional activities; that is, the place of the residence halls, cafeteria, student union, bookstore, and other facilities necessary to administer the institution in terms of business organization and maintenance problems of the campus.
3. Select the site either in its original form adequate for the ultimate scope of the institution or adequate for the initial stages with options or other opportunities to condemn additional land when and if necessary.
4. Employ a master planner skilled in landscaping and layout of roads, utility lines, and all of the other aspects of site development.
5. Design the buildings to satisfy requirements of function and site characteristics.

Events beyond the control of San Francisco State College precluded this logical development.

As has been pointed out before, the first 57 acres purchased were in essence the only available campus site in the city. The purchase of the additional acreage was accomplished only with great difficulty. The State, which holds title to all State college property, has a policy of refusing to condemn land unless it is absolutely necessary. As a result various land owners around the campus held up their offers to sell additional strips and plots until condemnation proceedings were about to start and then tried to drive the best possible bargain.

The first development on the new campus took place during the depression, when materials and labor were supplied by the WPA. The only agency that had any conception of a master plan for the campus at this particular time was the State Division of Architecture, but its action in laying out such a plan was entirely unilateral. Neither the college nor the State Department of Education was given adequate opportunity to work out ideas as to the educational functions of the new college. The first two buildings were designed during the war. At that time there was no central planning agency in the college. The State architects went through the long, wasteful, and trying process of planning each facility, and in the case of one building each aspect of each facility, with the faculty people involved. To repeat, the first planned enrollment goal was 3,500; the goal set by the so-called Strayer report was 5,000; the third goal set by State board action in 1956 was 9,000. As this chapter is being written one opinion is that the college should build for 12,000 and another is for a possible 15,000.

In 1949 the college abolished its representative faculty building committee and put into the hands of its executive dean the authority and responsibility for the complete planning of the new college's facilities. The executive dean worked directly under the president, and for all practical purposes over every other person in the institution, in all matters concerning planning of the facilities. This does not mean that the widest possible choice was denied the faculty as a whole, or any department or division. For matters affecting the entire college the president of the college drew upon the resources of the executive dean and afforded opportunity for the faculty to participate. The participation, however, was through the division chairmen as members of the president's cabinet, not through direct faculty meetings. In working with the various departmental faculties and other agencies on the campus, the executive dean gave full opportunity to each individual or group who differed from him in any major decision to report to the president, whose word was final.

At the time the executive dean took charge of the building program, he was confronted with the master plan developed unilaterally by the State Division of Architecture. He requested that a land planner be assigned the task of working with him in the scrutiny of the existing master plan and to make recommendations for its modification. An architect with wide experience in land planning was assigned this task. As a result of collaboration between him and the executive dean, certain basic decisions were made relative to the master plan. The most important of these follow:

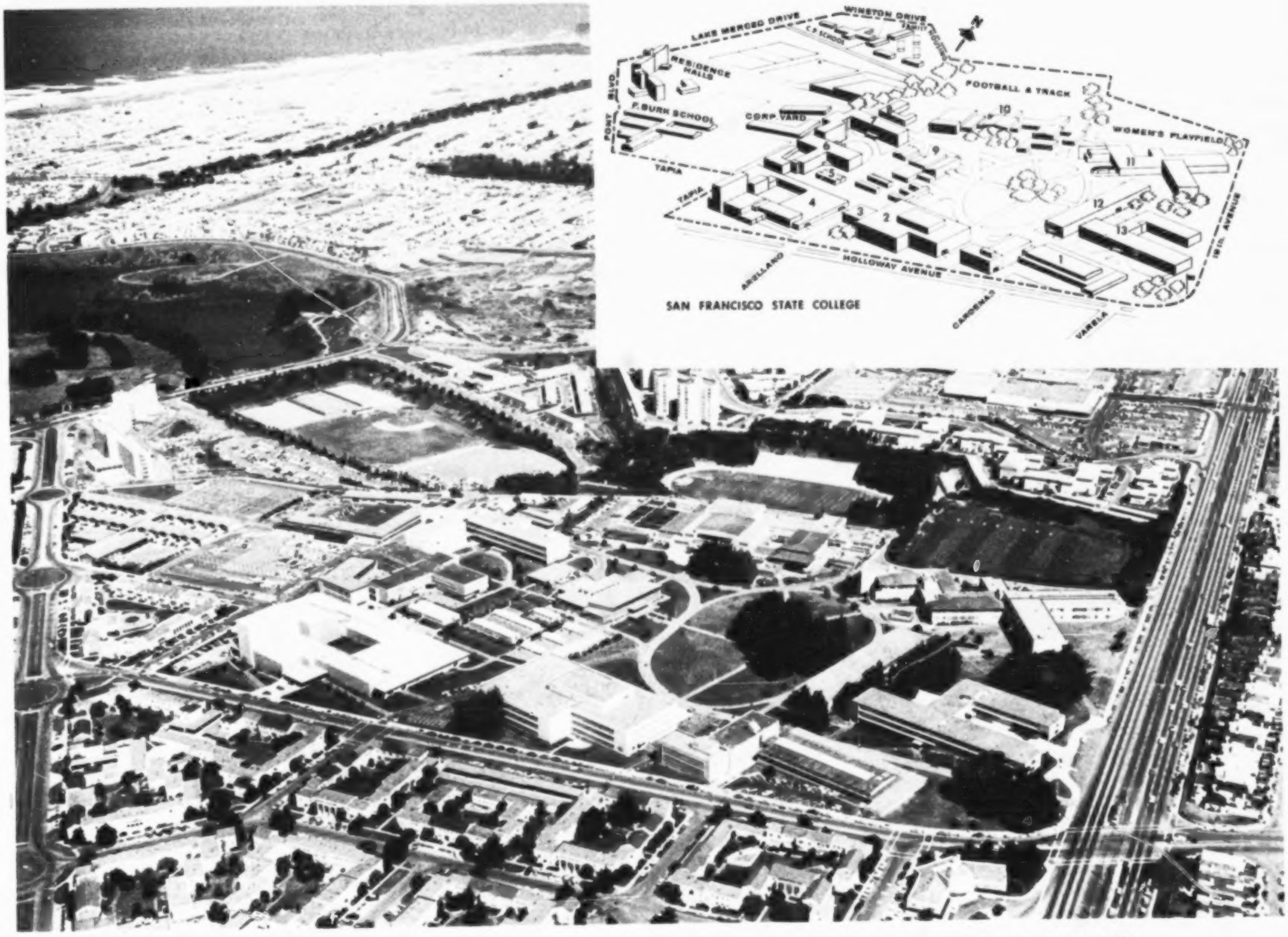
1. It was determined that the master plan should be designed entirely for the students, faculty, and staff of the institution, not for the general public. Toward this end every building and other facility on the campus fronted on an interior area and turned its back to the surrounding streets and neighborhoods. The interior area, or "quad," became the functional center of the entire campus. (See p. 83.) Its diameter was determined by a simple formula—the distance between those two buildings that would at any future time be furthest apart had to be such that any healthy student could easily cover the distance on foot in the normal 10-minute interval between classes. This open site was conserved as carefully as possible, and provisions were made for additions to buildings and for new buildings between the inner circle of structures and the outer limits of the campus. In effect, therefore, the buildings were pushed toward the outer diameter and the "front yard" of trees and sweeping lawns was set in the middle of the campus.

2. Wherever possible a flexible type of construction was used; that is, bearing and shear walls were held to a minimum. Many exterior walls were of the curtain type, and many interior walls were the type that bore no weight and could therefore be moved without danger to the strength of the building. Whenever possible movable metal partitions were installed. When it was known that a building would definitely be added to in the future, preliminary sketches of the ultimate building were prepared and the first unit designed with every possible provision for later additions. Modular design was adopted whenever possible. Weight was borne on columns rather than on walls.

3. Careful thought was given both in the master planning and in the planning of each building, to the climate, soil, terrain, and every other physical characteristic of the location. Because nature "air-conditions" the Pacific Ocean side of San Francisco no money was used in providing air conditioning for buildings. Because of the fogs, both high and low, generous provisions were made for windows. The various playfields necessary to the program of physical education and recreation were located in the filled-in canyons where the soil structure prohibited the construction of heavy edifices. Since the problem of parking was anticipated several years before the limited site made parking a very real problem, provision was made early for a multistory garage. The first three floors of this garage are now under construction and the footings and columns will carry an additional two floors. The grass for the lawns, the trees, and even the shrubbery and planting beds for annual flowers were selected from the standpoint of the nearness to the salt air of the ocean and other aspects of climate that both limited and extended the scope of landscape development.

4. In determining the location of each building strict attention was paid to its functions. Thus the gymnasium was located as near as possible to the playing field. The large building housing the Little Theater and auditorium was moved from its first site (determined earlier by the State Division of Architecture) to another corner of the campus; the first site was adjacent to a main north-south highway where parking would always be very limited; the new site selected was adjacent to a parking area that is yet available and to many blocks of peripheral side street parking. The cafeteria was placed directly adjacent to the future student union building, which is yet to be financed. The only time the principle of function was somewhat modified was when the library was placed at one side of the central area; from the standpoint of function it should have been built in the center of the "quad," but it was decided that moving it to the side would add to the beauty of the campus and detract but slightly from its efficient function.

5. Every effort was made to anticipate and meet the needs of traffic, both students' and visitors'. Corridors were expensive and heavy pressure was exerted by the fiscal authorities of the State to save funds. In order to meet these conflicting demands the size of the corridors was determined by a study of peak-hour traffic. As a result, only one building has corridors wider than 8 feet, and its 2 additional feet were the result of uncoordinated efforts, before the college vested responsibility for planning in the office of its executive dean. Mistakes were made, of course.



Aerial view of San Francisco State College campus. The main buildings front on the inner quadrangle. The cafeteria is located near the academic buildings on this urban college campus. Key: 1, Administration Building; 2, Library; 3, Bookstore; 4, Creative Arts Building; 5, Air Force R.O.T.C.; 6, Arts and Industries Building; 7, Education and Psychology Building; 8, Health Center; 9, College Commons (Cafeteria); 10, Gymnasium; 11, Science Building; 12, Business—Social Science Building; 13, Humanities—Language Arts Building.

One building ended with corridors under the 8-foot standard, but this decision was one that was forced upon the college because of lack of funds at a date too late to secure augmentation.

Factors Governing the Selection of Type of Architecture

It has already been explained that the college was subject to the State Division of Architecture in architectural matters and that the State Department of Finance scrutinized every item of cost in architectural design. There was, then, little escape from a strictly functional type of architecture, relatively simple rectangular buildings that were somewhat severe in outside dressing as well as in design. All roofs were flat after the first two, which were designed during the war period. In all but a very few of the buildings the exterior walls were simply stripped of their form lumber and painted. There was almost a complete lack of brick or masonry trim. Entrance facades were rigidly utilitarian.

In spite of this stern functionalism, the ensemble has attracted highly favorable comment from many visitors. The college set up its own faculty color committee, and this committee selected a simple but attractive combination of warm basic colors and warm highlighting colors that effectively tie all buildings together in a unified whole. While the building interiors are devoid of sweeping staircases, generous lobbies, terrazzo floors, and marble corridors, the floor plans are highly efficient and flexible.

The Move from the Old to the New Campus

At the beginning of the planning period the college adopted a priority list of buildings and other physical facilities, governed by certain practical considerations. The first of these was the fact that the old campus was so crowded that it could not hold any more students. This meant that San Francisco State College had to look forward to living on two campuses for several years. The second consideration was the fact that the college was committed to occupy each newly completed building at the beginning of the semester following its completion.

In determining the priority order the college had two choices. It could build first the general purpose classroom buildings. Had this been done, there would have been ample space for a large number of students taking lecture courses, but it would have been impossible to offer much in the way of the physical and life sciences, music, art, physical education, and other subject fields requiring specialized facilities. The old campus was sadly lacking in specialized facilities of all kinds. The women's gym was hopelessly small, and the men's gym was a collection of rented facilities mostly off-campus. Art, music, drama, science, and every other subject field requiring specialized building construction were inadequately housed.

The College, taking the alternative choice, went on the assumption that if it built specialized facilities first, there would be adequate means of teaching laboratory courses and in a pinch, certain lecture courses could be offered in the laboratory rooms that were designed for a peak load of 5,000 students. The priority order therefore ran as follows:

Gymnasium and playing fields
Science Building
Fine Arts Building
Administration Building
Music and Speech Building
Classroom Building for business and social science
Cafeteria
Classrooms Building for education and psychology

The actual completion dates of the various buildings did not follow exactly in the above order because some buildings took less design time than others and therefore went to bid and were completed sooner than anticipated. In general, however, the priority list was followed.

The first building occupied was the gymnasium with its various playing fields and other facilities. During the first semester when students had to take the bulk of their courses on the old campus and their physical education and recreation on the new campus, a good 5 miles away, the staff learned enough of the basic problems of living on two campuses to work out the principles and procedures that were followed for several years. Since many students and most faculty people drove their own cars, transportation between campuses was not as severe a problem as it would have been if the college had had to provide for all shuttling of faculty and students. Three large buses were purchased, and these buses ran back and forth all day long. The scheduling of classes was based on the assumption that students would lose about 20 minutes each way; thus classes on the old campus started on the full hour and those on the new campus on the half hour. A student who took a history course from 8 to 9 o'clock, and then had to go to the new campus for physical education started the latter class at 9:30.

During this first semester many unforeseen problems arose. The swimming pool in the gymnasium was not completed on time, so for the first 6 weeks of the semester instructors taught swimming by the "lecture method." It was necessary to provide minimum food services for the luncheon period. A war surplus building was moved to the new campus and used as a snackbar.

The second building to be completed was that which housed the sciences. When this was occupied problems of transportation called for more adjustments in the class-scheduling arrangement. For the convenience of lower division students, sections of required basic general education courses were offered in the new science building. Since the new library was not ready, a small branch library was installed in the new quarters. From then on each major section of the college was moved from the old to the new campus at the semester break that followed completion of its facilities. The following table indicates the transition process. During the fall semester of 1950 the college was housed entirely on the old campus. By July 1954, every function had been moved from the old to the new campus, and only one caretaker was left behind to act as a watchman until the property was disposed of by State authorities.

The move required 4 years, and the problem of transporting students and faculty back and forth during the transition became progressively complex and disturbing. The old campus remained the seat of administrative and business functions until 1952. Faculty meetings were held in the old buildings. Each major office, however, had a branch office on the new campus. After the midpoint of the moving period, however, at the time the administration building on the new campus was occupied, the new campus became the center of all administrative functions and the old campus decreased in importance until its final abandonment in July 1954. There were many difficulties during the entire period. Many a stu-

Basic Data on Completed and Future Facilities at San Francisco State College

Purpose	Completion	Occupancy	Gross square feet	Cost of construction	Cost of initial equipment [1]	Total cost
	BUILDINGS COMPLETED					
Gymnasium	December 1950	February 1951	79,472	$1,088,374	$74,272	$1,162,646
Science	February 1952	February 1952	56,892	800,729	326,239	1,126,968
Library	October 1952	October 1952	53,341	645,659	74,079	719,738
Fine Arts	February 1953	February 1953	51,470	926,318	90,076	1,016,394
Administration	April 1953	May 1953	35,184	652,038	50,041	702,079
Business-Social Science	June 1953	July 1953	40,810	682,953	90,785	773,738
Cafeteria	September 1953	September 1953	31,930	694,637	29,984	724,621
Creative Arts	February 1954	February 1954	105,782	2,323,635	166,055	2,489,690
Education	June 1954	July 1954	68,258	873,482	88,459	961,941
Frederick Burk School	May 1956	September 1956	56,142	[2] 1,139,198	([2])	1,139,198
Corporation yard	July 1957	July 1957	22,400	208,653	14,628	223,281
Humanities-Language Arts	September 1957	February 1958	69,196	1,169,903	79,002	1,248,925
Library addition	April 1959	September 1959	155,341	1,228,375	272,450	1,500,825
Administration addition	April 1959	June 1959	20,593	479,472	9,097	488,569
Fine arts addition	June 1959	September 1959	28,588	504,200	105,000	609,200
Education addition	August 1959	September 1959	48,159	751,550	62,000	813,550
Science addition	September 1959	September 1959	68,047	1,423,200	620,000	2,043,200
Residence Halls	August 1960	September 1960	172,068	3,051,600	280,000	3,311,600
Gym addition	January 1961	Febuary 1961	65,000	925,200	13,900	939,100
Health Center addition	Febuary 1961	March 1961	6,376	215,600	37,600	252,200
	BUILDINGS UNDER CONSTRUCTION					
Bookstore [3]	1961		13,000	$280,000	$40,000	$320,000
Multi-story garage [4]	1962		367,212	1,500,000	13,500	1,513,500
Cafeteria additions, including Residence Hall cafeteria	1962		34,936	1,000,000	107,530	1,107,530
	BUILDINGS TO BE CONSTRUCTED					
Music-Speech	1964		54,000			
Psychology	1964		52,000			
Humanities-Language Arts	1965		54,000			
Residence halls and dining—						
Facilities for 800 students	1965		266,000			
Facilities for 400 students	1966					
Engineering-Science	1966		60,000			
	BUILDINGS NEEDED IF ENROLLMENT LIMIT IS INCREASED [5]					
Health Center addition	1966		12,000			
Psychology addition	1966		5,400			
Gym addition	1966		9,000			
General Classroom (First wing)	1967		86,000			
Corporation yard addition	1967		12,000			
General classroom (2d wing)	1969		86,000			
General classroom (3d wing)	1971		86,000			

(Not included above are needs for additional facilities for library, physical education, and nonresident dining facilities.)

[1] Includes nonattached or movable items.

[2] Financed by San Francisco Unified School District.

[3] Cost of construction financed by the San Francisco State College Foundation.

[4] Cost of construction to be amortized over 40-year period from income from residence halls. Balance to be amortized from income from parking fees.

[5] Data estimated.

dent had to be given substitutes for various required courses he was unable to schedule. The size of classes varied widely, not only from class to class but among sections of a given course. When the bulk of the classes were given on the old campus, the classes held there were sometimes several times as large as equivalent courses and sections on the new campus. This whole disparity was reversed when the bulk of the college occupied the new campus. Every effort to combat this unevenness was made. Blocks of courses were scheduled on each campus, but students nevertheless found all sorts of excuses to take courses on the campus most convenient to them. There is probably little doubt that the difficulties of attending a divided college held the enrollment of new students far below the normal growth that could have been expected. This is particularly true of those students who graduated from high schools in the immediate area and who heard first hand rumors about the inconvenience of the schedule.

The difficulties of getting student assistant help for the library, food services, laboratories, and other functions were also great for that portion of the split campus that was the adjunct rather than the main campus at the time. Faculty complaints were many and vociferous, particularly on the part of those whose schedules forced them to shuttle back and forth in their own cars once or twice during the day. Faculty meetings were often poorly attended. Clerical and other types of services cost more because of the splitting of functions. It was necessary to operate almost continuous light and heavy truck delivery service between the two campuses. Since each new building was occupied as soon as it was completed, which was sometimes months before adequate campus roads, walks, and landscaping were finished, foot traffic constantly carried abrasive sand into the buildings and caused considerable damage to floor coverings.

In order to use all facilities as completely as possible, it was necessary to concentrate most laboratory work into relatively few rooms and to convert other laboratories to lecture halls. In many cases laboratory equipment was left intact, and teachers of English found themselves lecturing to students surrounded by Bunsen burners and other scientific paraphernalia. In some cases, however, laboratories were stripped of all scientific equipment and filled with tablet armchairs for lecture purposes. In order to insure that the new buildings and equipment would be properly cared for, the chairman of the division for which the building was designed was made the responsible administrator for that building. The difficulties arising, however, may be well understood when it is remembered that several of the buildings had tenants who belonged to other departments and who could not be expected to show the same care in using the facilities as would those for whom the building was designed. Probably no other single problem created more tensions.

Communication among students and faculty encountered many problems. Students belonging to organizations found it nearly impossible to get a quorum at any meeting since membership was divided between campuses. Faculty committees had the same difficulties. Whether a given meeting was a success depended pretty largely upon which campus the meeting was scheduled. When a faculty member attempted to get in touch with any particular student, the fact that the student was shuttling back and forth between two campuses often made his problem a difficult one.

There were many other effects of living on two campuses that are more difficult to describe and less objective in their measurement. There is strong reason for believing that the type of program certain students selected was at least partially determined by the attitudes of the students with whom they shared a car ride to either one campus or the other. Many students commuted by car from 35 or 40 miles away. If the majority of those sharing rides had to go to the old campus the first thing in the morning, the minority often found themselves under pressure to take courses on the same campus. Faculty, too, often shared rides from their homes to the college. There is the possibility that some of these also requested certain courses or sections to meet not only the transportation convenience of their ride group but also to take advantage of the downtown campus' easier access by trains, streetcars, and buses.

It is difficult to assess the real cost of this period during which the college was in the process of shifting from the old campus to the new. It is quite possible, however, that the cost involved, including unmeasurable indirect costs, was so appreciable that it would have been more economical to hold the growth of the student body down to a number that could have been cared for on the old campus until such time as the college could have been moved in its entirety.

Accompaniments of Change

Ordinarily the institution which plans a new campus does so because of rapid growth. This was certainly the case with San Francisco State College. However, institutions, like individuals, often forget that change not only brings problems that have been contemplated, but also others that are unexpected. The new campus was planned with the mistaken belief that the staff had foreseen and made provision for most of the major changes that the college would undergo when it left the old cramped quarters behind. Neither the college administration nor the authors of earlier surveys of State higher education foresaw that the growth of San Francisco State College would be far greater than anticipated. Fortunately the college's master plan was flexible enough to adjust to most of this unforeseen growth. It was not anticipated, however, that the college would change so drastically in certain of its aspects that it would become a far different kind of institution. At the old campus with its limited site, crowded buildings, and relatively small faculty and student body, everyone knew almost everybody else. Democratic participation by the faculty was relatively easy and highly effective. Three years after moving to the new campus the staff became aware that the old college was gone. The faculty broke up into parochial divisional groups, and as growth continued the broad divisional faculties began to break up into departmental segments. It was difficult to get a quorum for faculty meetings. Committees multiplied and too often committee actions even on broad policy matters tended to arouse little debate when they were considered by the faculty as a whole for final action. Each major instructional department wanted its own representative on each major committee. It became increasingly difficult to find committee members at large who could think objectively of the welfare of the whole college as opposed to the welfare of the department to which they owed their immediate loyalties.

Much of the disintegration of the faculty as a closely knit group was due to the sheer increase in the size of the institution, but much also was due to the physical separation and grouping of the faculty into the various separate buildings on the campus. Many old friends saw each other once a month instead of almost daily. The common lunch hour, formerly from 12 to 1, was now scheduled from 11 to 2 o'clock. Both on and off campus small groups with common interests tended to dine together. With instructional divisions ranging from 30 to 100 faculty members, the new faculty member required a year or more to become acquainted with his immediate colleagues. Often years went by before he built friendships outside of his own field. It became necessary to have a faculty handbook to acquaint all members with basic regulations and procedures. A weekly faculty bulletin became necessary to announce meetings, deadlines, and official events. The modest person might write a significant book unknown to his colleagues outside of his field unless he sent a notice to the editor of the weekly bulletin. Farewell parties for retiring faculty became divisional affairs, whereas they once used to be college-wide in scope. Had the planners foreseen this great change they might have done something to mitigate it, but it probably could not have been prevented.

The changes that affected students of the institution were of the same general nature. Student organizations became largely those of special interests which usually revolved around the student's major academic field. Old college-wide student organizations tended to disappear. The old campus was centrally located from the standpoint of public transportation and around it were many rooming houses and small apartments where nonresident students could be housed within walking distance of the campus. The new campus was surrounded by restricted housing districts that afforded few low-cost rental facilities. It was hoped that the opening of new dormitories for 800 men and women would do much to bring back the old solidarity in the student body, and this did happen to a degree, but it was a slow process. More and more students have tended to become statistics in the registrar's office. Except in the case of the rare faculty member who insisted upon knowing all of his students as individuals, the old close relationship between teacher and students generally disappeared.

Most of these changes, inadequately sampled above, were the inevitable result of growth. No growing institution can escape problems, but most institutions could hold these problems down to a more desirable limit if they could anticipate them and if they could provide certain facilities. Some of these facilities are physical, and if they could be constructed in time, would ease the problems of such a move. For those institutions which can afford it, every classroom building of 40,000–60,000 square feet, and every major part of a larger structure, would benefit from student and faculty lounges. Such lounges would do much to hold faculty and students together both individually and collectively. A central faculty club would do much to bring all faculty together and discover for each the hidden talents of his colleagues. A generous student union building with many small meeting rooms would equally benefit the students.

Suggestions for Guidance

Almost everything that San Francisco State College could give in the way of advice to other institutions in planning new facilities has been already said. The writers feel that the system of State college planning as developed in California is an effective system for the development of capital outlay projects. This system, however, is rather complex because it was worked out for a large group of State colleges under the control of powerful and complex State agencies. The suggestions that might be given to a simpler State organization or to a privately controlled institution could therefore be far less complicated.

Faculty participation in planning should be through a representative committee with its chief responsibility the consideration of the general educational future of the institution. Few faculty members in any college are equipped by training or experience to participate actively in site purchase, site planning, in estimating population trends, or in detailed planning of individual facilities.

The direction of facility planning should be placed in the hands of an administrator equipped by both training and experience to handle this highly complex task. He should be responsible only to the president or vice-president of the institution or to a very small board or faculty committee which can give time to the work and which has the necessary knowledge, authority, and responsibility to work effectively. In a large institution this administrator should be well paid, on a full-time basis, and have adequate technical and clerical assistants. In a small institution a part-time building consultant should be retained on a long-term basis. He should make visits to the institution when necessary and work directly with a coordinator appointed by the college administration to keep the process going between his visits.

The president, vice president, or proper small administrative committee should resolve any conflict arising between the administrator in charge of the building program and any instructional department or other agency.

No institution should plan for less than a 10-year period, with intermediate target dates of 2 or 3 years each. It would be even better for the institution to look ahead 40 or 50 years, so that a site may be acquired while it is yet reasonably priced. Basic to the planning are estimates of the size of the student body for each target date. The measure of size of the student body should be the student credit hour or a derived measure such as the full-time student equivalent. The target date estimates of enrollments might therefore be in terms of FTE (full-time student equivalent) by instructional field and by each type of course given—that is, lecture or laboratory.

The institution must set its policy on utilization standards in order to translate the anticipated student credit hours into classrooms needed. The full-time student equivalent figures used here and elsewhere in this chapter when referring to the building of facilities relate to the enrollment from classes scheduled between 8 a.m. and 5 p.m. The current practice in California is to require, from the hours of 8 o'clock in the morning to 5 o'clock in the afternoon, an average utilization of lecture rooms equivalent to 30 class hours a week with 75 percent utilization of all stations. For laboratory rooms the standard is an average use of 22 clock hours per week and 85 percent of utilization. In the writers' opinion, these standards are excessively high even in a large institution that has a broad curriculum and that is alert to constantly changing methods of instruction. It is the percentage of station utilization that is most difficult to secure, rather than the minimal number of hours per week. The smaller the institution, the more impossibly high these standards become. In order to derive realistic utilization standards, the college should study its curricula, teaching practices, percentage of students in residence, the type of existing facilities, and any other factors that may bear upon utilization standards. Other standards must be derived to determine the target date complement of administrative and faculty offices, library space, and facilities auxiliary to classroom instruction.

If a new campus is to be purchased, long-term planning is even more important. Once the site is agreed upon, a land planner should be retained to lay out the general campus scheme, the approximate location of instructional buildings, residence halls, and other facilities. Initial and future roads, walkways, lawns, playing fields, utilities, and every other aspect of site planning should be carefully studied. The site planner is most effective if he works closely with the college on the location of educational facilities for the most efficient possible functioning.

In most cases the college cannot expect to plan all of its necessary new facilities so they may be financed and constructed at one time. If the expansion program is to cover a 10-year period, then the various projects needed to complete it should be given priority numbers and approximate completion dates, to the end that the college can follow an orderly program of student growth that matches the program of adding facilities. For an older institution the priority listing will include not only the building of new structures but the remodeling of some and perhaps the demolition of others.

Before actual requests for funds are made, specifications should be completed for each high-priority facility. Reasonably accurate cost estimates cannot be derived otherwise. The specifications should be educational and functional in nature as well as architectural. Specifications for each instructional classroom, auxiliary room, office, and every other facility necessary for efficient handling of the educational functions assigned to the building, should be laid out in detail. Such specifications should include the following information: function of the room, type of student station, if any, number of stations, FTE capacity of the room, square footage, facilities that will be built into the room as a part of the general contract, items of equipment that should be a part of the general contract, and items of equipment to be purchased directly by the institution that are not a part of the general contract.

The best approximate estimates are subject to change due to shifts in the cost of materials and labor and other unpredictable factors. Therefore, the college should secure sufficient funds to meet the estimated cost of the gross area plus at least 15 to 20 percent for contingencies. If not used on this project, the balance can be held over for the next.

Since selection of an architect is such an important step, it should be confined to those architects who have had experience in designing similar college structures. The architect chosen should have a sound reputation for reasonably accurate estimates of costs, and should recognize the value of help from educational consultants in college facilities.

During this planning period the college should determine whether it will purchase its own equipment and thus save the architect's usual 8 percent fee or whether it will retain the architect to supervise these purchases. While the architect must know what equipment goes into each room so that he may design a room to fit, the probability is that the college could actually purchase the equipment at a considerable saving. At the time of the final submission date for working drawings, a final detailed conference should be held. At this time both the college and the architect should have a complete record of all original specifications, all changes in such specifications, and notes covering every other type of agreement between the college and the architect.

Both the college representative and the architect should sign all documents. Only in this way can misunderstandings be held to a minimum. No change order should be initiated by either party alone, for change orders are generally very costly. When the architect originates a change order, the college should fully approve the reason and the cost. When the college originates such an order, the architect should estimate the cost and give his opinion on the item's desirability. It is strongly urged that the college consider seriously the advisability of providing for certain types of inspection not normally covered in the architect's contract. These would include surveys of soil compaction, slump tests, and inspection of steel and weld joints.

Acceptance of the building from the contractor should of course be approved by the architect, the college, and if they are retained, specialized inspectors. The architect should carry his services through to the expiration dates on all guarantees made by the general and other contractors.

Planning Process at San Francisco State College

The following steps in the planning process are those which, based on experience, the college requires at present. It must be admitted that not all of them were followed in the move described in this chapter. The first version of the procedures listed below was drafted in 1949, crystallized in much of its present general form in 1953, and refined and consolidated in the years that have passed since that time. The procedures are still in the process of revision and may, when the new State Board of Trustees assumes control, undergo still further change.

1. Projection of college enrollment 5 years in advance with tentative projections another 5 years or more beyond that. In California the basic projections are made by the Office of the Population Analyst in the State Department of Finance with the cooperation of each State college.
2. Estimate of FTE enrollment in each instructional department for each of the target dates.
3. Estimate of FTE enrollment in each instructional department, broken down into enrollment in lecture courses, laboratory courses, and those activities that need no classroom facilities (student teaching in the public schools, for example).
4. Determination of classroom utilization standards to be used in estimating classroom needs. These current standards, uniform for all California State colleges, set the average hourly use per week required in all lecture and laboratory rooms and the average percentage of utilization of stations. This will equate FTE to student stations.
5. Use of the formula derived from the utilization standards to estimate the number of student stations needed at the target date.
6. Translation of the number of student stations needed into classrooms of various functions and sizes.
7. Subtraction of the number of classrooms that are now available or that will be available at the target date from the number of classrooms derived from step 6 above.
8. Determination of classroom facilities available at the target date for which planning is being completed. These facilities are made up of those now in existence, those in course of completion and those that are financed and will be completed for occupancy at the target date.
9. Derivation of the net additional facilities required by subtracting the facilities that will be available at the target date (step 8) from the total need of all facilities at later target dates.
10. Drawing up of complete educational specifications for all new facilities needed, including classrooms, auxiliary rooms to serve these classrooms, offices to house new faculty, and noninstructional facilities—central administrative offices, cafeterias, residence halls, corporation yards, and library.
11. Establishment of a priority order of all facilities to be requested.
12. Establishment of statewide priority list for all State colleges by the Division of State Colleges.
13. Preliminary planning by the Division of Architecture from the detailed specifications submitted by the college. Conferences between the architects and the executive dean are then held, and from the preliminary plans and specifications the estimated cost is derived. The scope and cost of each building must be agreed to by representatives of the college, the Division of State Colleges, the Department of Finance, the Legislative Analyst, and the Division of Architecture. Subsequent additions to scope are approved only at a new scope conference attended by representatives of all of the agencies listed above.
14. Inclusion of cost estimates and descriptions for each project in the Governor's Budget. If funds are insufficient at the time, the financial authorities of the State may postpone certain projects but no final deletion may be made without general concurrence.
15. Action by the legislature on all capital outlay projects. The very careful screening preceding legislative action has been so effective in recent years that the legislature has approved almost every project.
16. Determination by the State Division of Architecture of which projects shall be designed by its own architects and which shall be allotted to private architects under the Division's general supervision. It appears to be the right of the new Board of Trustees to supervise all State college building in the future, although the State Division of Architecture would continue to be utilized for certain projects.
17. Preparation of working drawings by Division of Architecture designers or by private architects under the supervision of the Division of Architecture in close and constant collaboration with the college's executive dean and with the Administrative Planning Office in the Division of State Colleges.
18. Publication of specifications by the State Division of Architecture. Copies of these specifications and blueprints are provided to all qualified construc-

tion firms in the State. By law the work of construction must go to the lowest qualified bidder. A starting and completion date are a part of the contract.

19. Appointment by the State of a construction supervisor under the direction of the State Division of Architecture for each building under construction.

20. Consideration of change orders which may become necessary because of some unforeseen factor, such as poor subsoil conditions, errors in structural design, or any factor other than that relating to educational functions. The necessary change orders are initiated by the construction supervisor/or the architect who designed the building. The thoroughness of the planning system has held costly change orders to an almost irreducible minimum. On this campus the average has been less than two minor change orders per building.

21. Acceptance of the building from the contractor following inspections by the construction supervision branch of the State Division of Architecture. There is usually one inspection for general work in addition to one for electrical, one for plumbing, etc. When the building has been finally accepted by the State it is turned over to the college for occupancy. Certain facilities in each building are covered with a guarantee of 1 year after occupancy. Should these facilities be found wanting during this period, the contractor responsible is required to make necessary alterations.

22. Formal announcement and dedication of each facility is left to the college. When only one building is completed every year or so there is usually a formal dedication ceremony for that structure. When several buildings are completed within a few months of each other, dedication ceremonies may cover all such facilities.

23. Assignment of space in each new building is in the hands of the local college authorities. In general, however, assignment of space follows the original plans. Long experience has taught this institution to follow certain guiding principles in assignment of space. *First*, each new building "belongs" to the college as a whole, not to any one department or to any other agency of the institution. Each department receives only those areas that it can use. Thus, if a science department cannot use all of its facilities efficiently at the time it moves in, and if other departments are short of facilities necessary to carry on their programs, then the needy departments are assigned space in the science building. This may mean that temporarily unnecessary laboratories may have all scientific equipment removed and be converted into temporary lecture rooms. *Second*, no department is given consideration for additional classrooms until those previously assigned have met utilization standards.

24. Appropriation of funds for equipment for small construction projects is made by the legislature the same year that it appropriates funds for planning and construction. For large projects, however, the appropriation for equipment is made the year following the appropriation for planning and construction. The appropriation for equipment is allocated to the college. The purchasing agent working with the executive dean and with the departments makes up his equipment orders and submits them to the State Purchasing Department. The State Purchasing Department normally calls for bids and is bound by law to accept the lowest bid that meets the proper standards.

25. *Miscellaneous items.* Each building project carries a contingent fund that ranges from 5 to 10 percent. This fund is retained until 1 year after the building is occupied. When the low bid accepted for a structure is higher than the appropriation available, it is the usual practice for the State Department of Finance to augment the appropriation from reserves. The architect is practically never forced to redraw plans and resubmit them to bid. If the low bid is below the appropriation, then the college is directed to hand back the savings to the State so that a reserve fund is built up to provide for augmentations. If the amount of money appropriated for equipment is insufficient, or if it is larger than is necessary to purchase the approved equipment, then, respectively, the equipment fund is augmented from reserves or the reserve fund is increased by the surplus.

Once each year a field representative from the Division of State Colleges makes a careful inspection of all facilities on the campus and estimates the full-time student equivalent capacity of all classrooms. He also estimates the faculty office capacity of each building. These data are used by each college as a basis for estimating future needs.

Inasmuch as all State colleges are built on State-owned property, any conflict between State building regulations and local building regulations is resolved in favor of the State. All easements written into deeds of State-purchased property are respected by the State.

As of this date, the State has refused to finance student union buildings, bookstores, and similar enterprises. If money from other sources becomes available for the construction of such enterprises and a site on a State college campus is available, the State will lease the site to a properly approved local organization. All structures and other facilities built on leased sites become the legal property of the State. Actually the State has never assumed control of such property. These facilities must meet all State requirements for construction as interpreted by the State Division of Architecture, which also approves the design.

Postscript

In 15 years San Francisco State College has grown from a student body of 800 to one of 12,000, or approximately 8,600 FTE; from a faculty of fewer than 80 to one of nearly 700; from an undergraduate school dominated by the teacher-training function to a broad liberal arts institution with master's degree program and plans for entering the field of the doctorate in cooperation with the University of California. It is rapidly expanding into the area of research—institutional, faculty, and foundation sponsored.

When this program of expansion started, 15 years ago, the institution was housed on 5 acres of shabby, congested site in the heart of San Francisco. We are proud of the fact that, during those hectic years, we planned a new campus, moved to it, and continuously expanded our new facilities—all without even one serious interruption in the rapid development of our educational program. The sacrifices were many, but they were largely those that affected the personal convenience of students, faculty, and administrators. There were complaints, but they were transitory and probably healthy.

Today the senior staff members who planned and managed the move to the campus near Lake Merced recall the problems and difficulties, but the faculty member enjoying the new, well-planned, and functional facilities, or the student strolling across the tree-dotted quad between the newly expanded science building and the newly expanded library, can only conclude that, whatever the tribulations, the move was worth it. With proper planning, difficulties can be kept to a minimum, and even a large urban institution like San Francisco State College can shift its location, if not easily, at least with benefit to all concerned.

The tremendous expansion in higher education since the close of the second world war is a matter of statistical record and this growth will apparently continue. This vast increase in the numbers of youth in higher education will be accompanied by some foreseen and many unforeseen changes in curricula and teaching procedures. The possibilities of audiovisual facilities have as yet been barely explored. Experiments in education by television may lead to less than the zealots forecast, but they are symptoms of the far-reaching changes about to break over us. Learning machines, in some form or another, will disturb cloistered halls that in many cases still are much the same as they were 20 years ago. Any significant new direction in the educational program of a college or university sooner or later calls for some alteration in the buildings and equipment that must serve the new functions. Every college and university, therefore, should have a continuous program of long-range planning for its physical facilities as well as for its educational ends and means. Every facility should be so carefully planned that "function" for the foreseen should go hand in hand with "flexibility" for what may actually come. If a college or university has an opportunity to move, this may provide an excellent chance to replan its future with these factors in mind.

Chapter VIII

THE ADMINISTRATION of Howard College had learned through sad experience that such a major operation as moving the college to a new campus can arouse bitter divisiveness among its constituents. The officers therefore in contemplating this move first employed various survey agencies to be assured that the move was sound and feasible from every angle and then told the story convincingly to the denominational body from which its support derives until there was enthusiastic favorable response.

In this instance the new facilities were sufficiently near completion to permit the move to be made at one time between terms.

Moving Howard College to a New Site

By

HARWELL G. DAVIS
Chancellor, Howard College, Birmingham, Ala.

HOWARD COLLEGE of Birmingham, Ala., moved 11 miles from the East Lake campus to an entirely new campus in suburban Homewood during the summer of 1957. The story of that historic move is one chapter in the story of the awakening of a large number of people to a keen awareness of the compelling need of such a move; the story of meeting strong opposition from some good and influential people who did not consider the move necessary or judicious. Above all it is the story of heroic action of many devoted, unselfish persons who gave of their time, their talents, and their finances to establish a new and beautiful campus.

Historical Background

For a long period after the War Between the States, agriculture on the large farms in the southern part of the State gradually became less and less profitable. The population of the State shifted to North Alabama. Industrial Birmingham became the fast-growing metropolis of the State. In 1887 Birmingham sought to have the poverty-stricken college moved to that city from Marion, Ala., and a high-pressure campaign was conducted for the purpose of accomplishing this objective. The Alabama Baptist State Convention met at Union Springs in July 1887. During the convention a proposal was presented and approved to move the college to Birmingham. It was during these flush times when land values, in and around Birmingham, were inflated that the site at East Lake in Birmingham was chosen.

Although the decision by the Alabama Baptist State Convention to move to Birmingham was by a clear majority vote of the convention, the action alienated a large amount of the financial support of the college. The president of the college refused to move to Birmingham, and, with many of those who also opposed the move, he established and operated a college on the old campus at Marion. This rift seriously handicapped the development of the new campus at East Lake and the growth of the student body. (Approximately 60 years later, when consideration was given to relocating the campus, it was realized that history was waving a red flag to warn that such action could safely be taken only after a virtually unanimous action of the Baptist State Convention.)

By its charter Howard College is an agency of the Alabama Baptist State Convention. This Convention appoints its trustees and appropriates funds for its support. The membership of the Alabama Baptist State Convention consists of messengers from cooperating Baptist churches located in Alabama.

Among the purposes of the Convention the following are stated in its constitution:

1. To offer an agency of cooperation for the churches.
2. To promote the preaching of the gospel.
3. To support ministerial education.

The finances of the Convention result from voluntary contributions by the cooperating churches through what is known as the Cooperative Program. The convention has no authority to require any church, association, or individual to support it financially.

Thus it is evident that the very existence of Howard College and its future prosperity require any important or major move of the college to have the almost unanimous approval of the convention and of the Baptists of the State of Alabama.

The property in East Lake donated to the college for a campus was approximately one city block wide and several city blocks deep. Time proved this to be inadequate for the development of a proper campus and the campus at East Lake was never fully developed.

In 1889 the Baptists over the State pledged $32,000 for endowment and $14,450 for new buildings. On the strength of these pledges the principal building on the East Lake campus was completed in 1891 and, originally named Academic Hall, it later became known as "Old Main." The Panic of 1893 which swept Birmingham bankrupted Howard College. No additional buildings of any importance were erected on the campus until the fall of 1902. At that time Dr. A. P. Montague became president of the college and served until August 1912. During the 10 years of his presidency, Renfroe and Montague Halls were built and $100,000 of endowment was raised. Afterwards, what was known as Science Hall was erected. This was a brick veneer building constructed from secondhand materials. There was also constructed an attractive dormitory for young ladies, which was located about a block from the main campus, and a small but substantial gymnasium was built on the campus. As the student body increased, these buildings became inadequate to accommodate the activities of the college. Consequently a number of old residences were used for classrooms and offices.

Financial Difficulties

On July 1, 1939, Howard College had a change in administration. For a number of years prior to that time, the college had operated at a financial deficit and at the close of its fiscal year in 1939 it owed approximately one-half million dollars. The salaries of the members of its faculty, its current operating bills, and the interest on its funded debt were delinquent. The college had no credit. It was necessary for the president of the board of trustees of Howard College to endorse the note of the college for a few thousand dollars in order to secure a sufficient amount of money to pay the outgoing president his salary to the end of his term of office. To keep the college operating, the incoming president served without compensation for the first 3 months in office.

The new administration found that the buildings being used by the college were in such condition that it was impossible to repair them economically. The old residences being used for classrooms presented an especially serious fire hazard. The cramped area of the campus was bounded on one side by dilapidated shacks; too, several privately owned residences were situated in the same block with the college buildings. On the other hand, the college was situated in what was once a fine residential section. The Baptist Church near the campus had for a half century been the college church and its local members had served the college students well. The quadrangle with its gentle slope from "Old Main" to the street, shaded by its fine oaks, was beautiful and it created a sentimental attachment that tended to prevent a full appreciation of the critical needs of the college.

The college had been "starred"[1] by the regional accrediting agency because of its financial condition, its inadequate support of the library, and its failure to pay promptly the salaries of the faculty. Consequently, the first task of the new administration was to secure funds on which to operate and to restore the financial reputation of the college.

While the trustees knew the college was in bad financial condition, they did not realize that the condition was so acute. When the board was advised of this condition a meeting was held and the members present contributed $35,000 cash to enable the payment of salaries of faculty members and of some of the more pressing debts. After that experience the college paid cash for every purchase it made. In addition to this contribution by members of the board of trustees the college raised by subscription during the first year of the new administration about $150,000 to apply on its indebtedness. The progress made during this first year was sufficient to influence the regional accrediting agency to restore the college to a fully accredited status, although it took several years to put the financial house in order.

It was generally recognized by those familiar with college needs that the area of the campus of Howard College was inadequate. Previous administrations of the college had called attention to this fact and made some attempt to move the college to a location where it could develop properly, but these efforts had failed. The administration sought advice from several prominent college administrators who resided outside of Alabama concerning the needs of Howard College. The unanimous opinion of these advisers was that it was necessary for the college either to acquire a considerable area of land adjoining its present campus or to move to an entirely new location. These findings were given publicity throughout the State in the hope of reaching as many of the Baptists of Alabama as possible.

Efforts To Acquire Land

The Board of Trustees of Howard College first decided to make an effort to secure property adjoining the present campus. The president of the college was authorized to attempt to purchase such property. This plan of the college soon became known, and the prices of properties in that vicinity suddenly were very high. Some of the owners of property adjoining the campus refused to state a price at which they would sell the property; others refused to permit an inspection of the houses in order for the college to determine what offer it would make for such property; and some needed property was bought by speculators.

Illustrating the difficulties encountered in the effort to secure property adjoining the old campus are two cases. One person suggested that he would like to be of service to the college without any expense in acquiring the property it needed. The trustees requested him to endeavor to purchase for the college certain houses and lots. Several weeks later, when he was asked if he had made any progress in securing the property, he stated that he found that the purchase price was, in his opinion, too high for the college to consider, but that he was of the opinion that the property was extremely valuable for other purposes than college purposes and consequently he and a friend had purchased it.

In another case, an owner had been offered a definite price by the college for an old residence situated under the eaves of its dormitory. The owner notified the college that the offer would be accepted. A representative of the college called late one afternoon for the abstract of title in order to use an accurate description in the contract of sale, which the owner stated she would sign the next morning. Knowing that an old couple who lived in the house would probably be disturbed when they found that the property was sold, the representative of the college stopped by their house and advised them that the college was buying the property but would not require them to move for a number of months. That night their son called the president of the college by telephone and said that he had been advised that the owner of the property was not bound legally because a written contract for the sale of the property to the college had not been signed and that he had agreed to pay the owner a larger price than the college had offered and had secured a written contract for the sale from the owner.

Through the *Alabama Baptist* (the denomination's paper), through representatives at each county association of churches, and at the Alabama Baptist State Convention, the Baptists of the State were informed of the efforts to expand the campus and the obstacles that were met in trying to acquire property adjoining the old campus. In a last effort to acquire the property, an appeal was made through the local clubs and other local organizations in the section of the city where Howard campus was situated, for the community to aid the college in obtaining the property needed. In this appeal it was stated that the college had been advised by prominent educators that unless it could secure this additional property it would be necessary to move the college to a new site. This statement prompted a prominent person to give utterance to the following sentiment: "The president of Howard College is a friend of mine, so I am reminding him that two previous presidents of the college suggested the moving of the college, and we simply moved the presidents."

---

[1] Listing of a college with an asterisk was the indication of provisional accreditation.

General Education Board Assistance

At about this time Howard College and Birmingham-Southern College, a Methodist school, secured a joint grant from the General Education Board (The Rockefeller Foundation) and made a successful campaign to raise matching funds to meet the conditions of that grant. Prior to making the grant the General Education Board made a survey of the educational needs of the two colleges and found that the pressing need of Howard College was plant improvement. The grant limited the funds which were to come to Howard College to that purpose and expressed the opinion that unless additional property could be obtained adjoining its campus a new college site should be developed. When this report became known there was every indication that the Alabama Baptist State Convention would approve the move to a new site, but the administration of the college was anxious that it be clear beyond a reasonable doubt that such a move was being forced by the failure to acquire the necessary property adjoining the old campus after a conscientious and strong effort had been made to do so. As stated earlier, history had warned that this was necessary in order to retain a sufficiently favorable climate for the raising of the large amount of money necessary to finance such a move and develop a new campus.

Institutional Survey

In October 1944, the Alabama Baptist State Convention requested Dr. Doak S. Campbell, then President of Florida State College for Women, to direct the study of the Baptist program of higher education in Alabama. The highly competent staff which Dr. Campbell secured to assist him in making this study consisted of the following personnel: Dr. C. C. Colvert, Professor of Education, University of Texas; Dr. Curtis H. Dickson, Vice President, Mercer University; Dr. Ray L. Hamon, Specialist in School Plants, of the U.S. Office of Education; Dr. A. F. Kuhlman, Director of Joint Libraries of Vanderbilt, Peabody, and Scarritt Colleges; and Dr. Earl J. McGrath, Dean of the College of Arts and Sciences, Iowa State University. The report of this study stated that the location of Howard College was not conducive to growth and development; that if Howard College were to remain at that location, a great deal of additional property should be acquired; and unless additional land was acquired the campus would be inadequate for athletic and playing fields, instructional and dormitory facilities, and faculty residences. It also stated that the facilities were substandard and inadequate and that unless Howard College secured adequate area for its campus and made the large amount of improvements which had been suggested, the result would inevitably be the decline of the Baptist program of higher education in Alabama. This report was made to the Alabama Baptist State Convention and received wide publicity. In addition to that report was the convincing evidence that the additional needed area adjoining the campus of Howard College could not be acquired, and that even if it could be acquired at the prices being asked by those owners who indicated a willingness to sell, it would be much more economical for the college to abandon its present campus and develop an entirely new one.

With these reports being given wide publicity, the Board of Trustees of Howard College submitted a recommendation to the Alabama Baptist State Convention requesting that the college be authorized and directed to acquire a new location and develop a new campus. The recommendation of the board of trustees was unanimously and enthusiastically approved by the Alabama Baptist State Convention. Thus concluded this long educational process, which had often taxed patience, which was filled with disappointments and discouragements, but which also disclosed that the people when properly informed would support the action which was to the best interest of the great cause which they had undertaken to foster through their convention. The selling campaign had yielded fine fruit. The college, and not the president, was to move.

Selecting the Site

The Board of Trustees of Howard College then authorized the president of the college, with the advice and consent of a committee of its trustees, to select and secure a new site for the campus. The selection of the site for the new campus was considered so important that it was decided to secure professional advice. First, it was considered advisable that the architects to be used in the planning and construction of the buildings be chosen immediately in order that their counsel and advice might be available with reference to the selection of the new location and its development.

The firm of Van Keuren, Davis & Company was selected because it had had considerable experience in designing college buildings in Alabama and in some other States, and was recognized as one of the outstanding architectural firms in the South.

The next step in the selection of the site was to employ a sociologist to make a study of population trends in Jefferson County, Ala., the county in which Birmingham is situated. The recommendation of that report was as follows: "As a result of the material contained in this study, it is my belief that Howard College would be wise to consider the trend of population and its movement to the district known as 'over the mountain' and to the Homewood section (Census Tract 56) should relocation be deemed advisable."

The report entitled "A Baptist Program for Higher Education in Alabama" had suggested that the new campus of Howard College be located on a part of the Birmingham-Southern College property west of their campus. With such a plan it would have been possible for Howard College to share with Birmingham-Southern College such new joint facilities as a library, auditorium, and fine arts building, and enable the joint use of some faculty members. It would also have offered a strong appeal to the General Education Board to build the joint library. This proposition was considered by the landscape architects before making their recommendation as to a college site.

"A Baptist Program For Higher Education in Alabama" had also indicated that population movements and trends were strong factors in social, economic, educational, and religious development, and should be given serious consideration in determining the relocation of the campus. Its most favorable recommendation was to maintain Howard College on an enlarged or a new campus in Birmingham. In this the report was in agreement with the recommendations contained in the report of the survey entitled, "Population Trends in Jefferson County."

With the approval of the architects, the college employed the firm of Olmstead Brothers, of Brookline, Mass., landscape architects with large experience in the field of developing college campuses, for advice in the selection of a new site and to suggest an overall plan for its development. This firm of landscape architects viewed and studied each available site. It advised that there was not sufficient property available adjoining the campus of Birmingham-Southern College to accommodate the development which Howard College should make. It also concluded that the site which had been offered as a gift had serious objections to its being used for a college campus.

The tract in suburban Homewood recommended by this firm as most suitable for a college campus was at that time over a mile from any public transportation. The lower portion had to be drained. That part of the tract which was to be used for the principal college buildings was a hillside so full of gulleys and ravines of various sizes that it was patent it would be necessary to grade the entire area to condition it for use. (See p. 98.) However, it was in that section where the sociological survey had suggested that the college should be located and it was in that area in which the survey of the population trends

Howard College, Birmingham, Ala., Buildings are of Georgian architecture and were ready for occupancy so that the move could be made from the old campus between the summer session and the fall term of 1957.

of Jefferson County had indicated a fine residential section would develop. The college authorities accepted the firm's recommendation and were able to purchase a tract of 275 acres. Afterwards the college acquired the control of adjoining property to the extent of 125 more acres.

Plot Development

After the property was acquired the landscape architects submitted a plan for its development. While some slight modification of this development plan was made by the college's architects, the basic plan suggested was retained. In accordance with this plan, surveys were made and specifications drawn for the grading of the campus and the location of the driveways, the walkways, and the utilities. In accordance with the specifications provided by the architects and their engineers, the driveways were built and paved, sanitary sewers and storm sewers were installed, gas mains and water mains were laid, and conduits for all wiring were provided.

Type of Architecture

This brought the college to the task of determining the type of architecture to be used, the character of the future program of the college, the probable number of students which it would seek to serve in the future, the educational demands of its constituency, and how the remaining development was to be financed. Preliminary research had been done and a study of these matters had been in progress for several years.

Much consideration was given to the type of architecture which should be used. Some expressed the opinion that the modernistic style would give more floor space for the money expended and could be made more functional. While this matter was under consideration, a graduate student in architecture at Harvard University requested permission and the cooperation of the college to design the entire new campus as a thesis for his Master's Degree in Architecture at Harvard. The building committee had the benefit of this thesis. This committee also requested the faculty to express a preference regarding architecture. The faculty expressed a preference for buildings that were modern in structure and function but not garishly modernistic. It wished to preserve as much as possible the beauty of the campus but to construct buildings that were dignified and with esthetic appeal. Upon inquiry, it was found that virtually every person from whom the college could expect large gifts favored a classical design of architecture. This fact strengthened the conviction already held by a majority of the building committee that a classical type of architecture would exert a great influence in securing contributions for the erection of buildings. The college's architects advised that if the Georgian style of architecture were to be used, they would have no difficulty in making the interior of the buildings functional. The building committee adopted the Georgian style of architecture, and all buildings are of that type.

Howard College in Alabama Education

In making definite plans for the development of a new campus, it was necessary for Howard College to determine as nearly as possible the extent of the role it would play in higher education in Alabama. In 1947, the President's Commission on Higher Education for American Democracy studying education in the United States, had concluded that within a few more years a large number of private and church-related colleges would be compelled to close their doors because of a lack of financial support. The financial history of Howard College indicated that it might be included in this dire prophecy. For hundreds of years the church-related college in the United States justified the faith, the vision, and the sacrifice of their founders. Then came the establishment of tax-supported higher education, which resulted in a swing of public interest to this idea and decreased the public regard for the importance and the equality of the church-related college. The result was inadequate financial and moral support, and many of the smaller colleges were compelled to close their doors. However, in the last few years the public has been shocked into the realization that the maintenance of these colleges was imperative. This conviction was not only voiced by religious leaders but had the outspoken and aggressive support of a great majority of the leading scientists of our country.

In 1945 the American Council on Education published the report of a survey made by the Alabama Education Survey Commission under the title "Public Education in Alabama." That commission's recognition of the importance of the privately controlled institutions is shown by the following quotation: "The Survey staff recommends that the State continue to recognize the valuable contribution made to Alabama by private colleges, and that the citizens encourage these colleges to develop and improve their services." The survey conducted by Dr. Doak S. Campbell and reported under the title, "A Baptist Program for Higher Education in Alabama," found that the financial support of the college by the denomination was exceedingly encouraging and that its plant should be enlarged to accommodate a larger number of students than was then enrolled. It was decided that the Howard College campus should be developed to play a greater part in higher education in Alabama than it had in the past, and that it should provide facilities which would enable it in the future to achieve more effectively the primary purpose and educational objectives for which the college had been organized.

According to the Charter and By-laws of the college, the primary purpose of Howard College is the "promotion of the Christian religion throughout the world by maintaining and operating an institution dedicated to the development of Christian character and high scholastic standing. To this end the college will include in its program of general education, herein authorized, the training of ministers to preach the gospel, of musicians to conduct and develop sacred music, and of laymen to do educational work and other religious work." This general statement has been adopted by the trustees of Howard College and by the Alabama State Convention.

Educational Programs

In 1945 the faculty made a thorough study of the educational objectives and developed what is now called the General Curriculum, made up of a group of liberal arts and science courses required of all students. Its objectives are to develop the student intellectually, socially, and spiritually.

The specific objectives adopted by the faculty are:

> 1. To understand the common phenomena in one's physical and biological environment, to apply habits of scientific thought to both personal and civic problems, and to appreciate the implications of scientific discoveries for human welfare.
>
> 2. To participate actively as an informed and responsible citizen in meeting the social, economic, and political problems of one's community, State, and Nation.
>
> 3. To understand the ideas of others and to express one's own effectively (communication).
>
> 4. To recognize the interdependence of the different peoples of the world and one's personal responsibility for fostering international understanding and peace.

5. To understand and enjoy literature, art, music, and other cultural activities as expressions of personal and social experience.

6. To develop for the regulation of one's personal and civic life a code of behavior based on Christian principles and democratic ideals.

Howard College has always been primarily a liberal arts college. Its major emphasis is still on a strong general curriculum in the arts and sciences. It has given basic training for the Christian ministry and for the learned professions. In an effort to serve the needs and meet the demands of its supporters, the college has for more than 35 years carried a curriculum in teacher education and for more than 25 years a degree program in pharmacy.

The teacher education program prepares teachers in both elementary and secondary fields. This work is fully accredited and the department is a member of the National Council for Accreditation of Teacher Education.

The Division of Pharmacy has attracted desirable students from the entire southeastern area of the United States and it now has one of the highest enrollments of any of the undergraduate pharmacy schools in this area. The Division of Pharmacy is a fully accredited member of the American Council on Pharmaceutical Education.

Since World War II the constituency of the college has insisted on a more extensive program to provide instruction in business and economics. The Business Administration Department has developed steadily and as rapidly as interest and finances would permit. The pattern of its development is that established by the American Association of Collegiate Schools of Business, of which it is striving to become a fully accredited member.

The curriculum in music has expanded rapidly to the extent that major instruction in sacred music, music education, instrumental music, and voice is now offered. All areas are accredited with the National Association of Schools of Music.

The Alabama Baptist State Convention has a continuing need for pastors. Since one of the primary purposes for which the college was founded was to prepare young men for the ministry, a strong Department of Religion and Bible is maintained.

In 1954 the college requested that a survey be made by Dr. R. Orin Cornett, then on the staff of the Education Commission of the Southern Baptist Convention. In this survey the instructional expenditures were analyzed and the unit cost of each credit hour of instruction was determined. The percentage of the total expenditure was determined for each phase of the college operation. The purpose of the study was to secure a better allocation of funds for instruction, a better distribution of the expenditures among the departments of instruction, and the opinion of an ouside competent expert on the work being done by Howard College. Recommendations were made for increasing the average size of classes by alternating the terms for offering smaller classes, by eliminating the smallest classes, and by discontinuing certain expensive instructional and counseling practices.

The course offerings of the departments of instruction were examined, and recommendations were made concerning the elimination of certain duplication of course offerings in several departments and for strengthening the curriculum in the liberal arts and sciences. After maximum economy was planned, this survey attempted to predict the future development of the academic program in the departments to provide a uniform and equitable rate of growth in each.

Extensive use of this survey was made by the faculty in framing its recommendations for the educational needs and objectives of the college. The faculty recommended that the development of the new campus provide larger and more efficient facilities for the academic work which the college was doing.

Building Committee

Soon after the purchase of the property for the new campus in 1947, the president of the college called together the Administrative Planning Council, which consisted of the department heads of the faculty and the administrative officials, and requested that a building committee of the faculty be appointed to study the needs of the college and, in consultation with the faculty of each department, to present the principles to be followed in planning the various departmental buildings and the general purpose buildings. After the type of architecture was selected, considerable attention was given to making the buildings functional and locating them on the campus logically in relation to one another, thereby allowing the college to operate most efficiently.

After 4 months of study in 1947, the building committee reported to the Administrative Planning Council its general recommendations for the ideal campus, concerning lighting, projection facilities, telephones, master clocks, chalkboards, audiovisual aids, corridors, stairs, coatrooms, restrooms, centralized records, library and museum, student union, parking, and air-conditioning. It presented special recommendations based upon the maximum use of floor space for the specific classroom, storage, and laboratory needs of the academic departments, and for specialized services, such as alumni relations, public relations, college development, extension, counseling, testing, placement, and remedial reading. The possibility of undertaking graduate work in the future was considered.

The details of the recommendations included the square feet of floor space needed; the requirements for specialized built-in equipment; shapes and light exposures of classrooms and laboratories; the location and accessibility of the plumbing; and the accessibility of the library and specialized services to certain classrooms and laboratories.

Copies of the original faculty building committee report were submitted to the architect with the suggestion that specialists in certain academic fields and services be utilized where possible. The architects not only used the committee recommendations in the development and planning of the buildings and campus, but returned each set of their preliminary drawings to the faculty committee for review with the faculty of applicable departments or with the appropriate administrative personnel.

In 1950, when the plot plan of the campus with suggested locations of buildings was prepared, the faculty committee not only reviewed those plans, but rendered valuable service pointing up the relationship of the new campus construction to the proper realization of the educational objectives of the college for that particular time and for the future growth and expansion of the academic program.

Valuable information with reference to making the buildings functional was secured by visiting, with the architects, other campuses where recent academic buildings had been designed and constructed. The architects approved the suggestion by the faculty that specialists in certain fields be employed to advise with reference to the development of buildings for their respective fields, and the college did employ assistants of this character. For instance, the college secured the services of Dr. A. F. Kuhlman, Director of Joint Libraries of Vanderbilt, Peabody, and Scarritt, to advise the administration and the architects with reference to planning the library.

Projecting the Enrollment

It was necessary to determine the number of students to be accommodated by the plan of development and a study was made for this purpose. The report entitled "A Baptist Program for Higher Education in Alabama" had indicated that Howard College should develop its educational plant to accommodate 900 students, with dormitories for 500 students. This report was made in 1945 when the student body was much less than 900, and before the colleges had experienced the great influx of students returning from World War II. By the fall semester of 1948 the veterans, along with the students regularly graduating from high school, increased the enrollment of Howard College at an all-time high, exceeding the capacity recommendation of the 1945 Alabama Baptist Educational Survey Team by more than 50 percent. It was generally recognized, however, that enrollment was swollen because of the return of the World War II veterans, and it was assumed that it would be stabilized at a lower level in a few years. At the same time, the enrollment figures in the grades of elementary schools and in the high schools predicted a sharp increase in college-age population after 1950.

A study of the enrollment of Howard College in the 5 years prior to 1955 indicated that it had doubled within that period. It also disclosed the fact that a large number of qualified students had been unable to attend the college because housing and, to some extent, classroom facilities were not available. Meanwhile, several educational groups were indicating that enrollments would sharply increase as the college-age population increased and as the percentage of that group desiring a college education increased.

Since nearly half the college-age population of Alabama were affiliated with the Baptist churches or were members of families affiliated with Baptist churches, it was estimated that the number of applicants from those churches would increase in proportion to the increase of the college-age population. It was also felt that with proper facilities the college would gain still further in enrollment of students. It was decided in its plan for the overall development of the campus to project a new campus for 2,500 to 3,000 students. (The library construction provided for an expansion up to 3,600.) The other buildings were to be located so that the campus could be expanded still further as enrollments increased and as funds became available.

Over a long period of years the college enrollment had consisted of a ratio of roughly two men students to one woman student. It was assumed that the imbalance was caused by the lack of housing facilities for women on the campus and by the relative facility for men to commute by auto from outlying area. In the light of this consideration, the campus was planned for approximately equal housing provisions for men and women. The construction of the first housing units provided for 342 women and 321 men.

Financing the Project

In a college of the character of Howard College, the financing of a great undertaking like the development of a new campus is a Herculean task. Again it should be emphasized that it could not have been accomplished without the enthusiastic support of virtually all the contributing membership of the denomination on which it depends. In 1954 the college development office, with the assistance of the college's architect, prepared the prospectus presenting the need for 15 buildings to develop the new campus, which at that time were estimated to cost $11,120,000. For the minimum number of buildings required to move the operation of the college to the new campus, cost was estimated at $7,500,000. For several years the administration prepared to meet this problem.

During the years a successful effort had been made to have the Convention elect as trustees of Howard College men throughout Alabama who were known for their business ability and success, and who had been active in the interest of civic affairs and demonstrated a loyalty to their church. Such a board of trustees gave confidence to those who could make substantial monetary donations, that the funds would be wisely and properly used. Much of the success of the financial campaign is due to the outstanding men who constituted the board of trustees and to their liberality.

The Women's Auxiliary

Another group that made a large contribution to restoring the prestige of Howard College and meeting many of its needs was the Howard College Auxiliary. The Howard College Auxiliary is composed of women interested in aiding the college and has a statewide membership.

Some executives object to such organizations on the ground that their efforts are not always coordinated with the plans of the college, resulting sometimes in injurious conflict. The Howard College Auxiliary was careful to clear with the college administration not only every proposed project but also the implementing of the project.

As a rule women are much more sensitive to the great value of beauty than are men. The Auxiliary women were keenly conscious of the necessity of relocating the campus and wielded a large influence in persuading others of the wisdom of this effort.

The Auxiliary had renovated the auditorium of the old campus, furnished the ladies' lounge and the reception room of the girls' dormitory, helped beautify the grounds, and contributed in many other ways to the betterment of the college.

When the college was ready to move to the new campus, finances did not permit purchasing the several thousand dollar's worth of draperies and the renovating of old furniture for the large living room of the new girls' dormitory. The Auxiliary secured from a cloth manufacturer the material for the draperies, paid for their making, and furnished the living room. They also gave in cash $15,500 toward the Building Fund.

The Auxiliary instituted the "Candlelight Dinner," which is becoming a tradition. This is an annual dinner at Commencement jointly sponsored by the Auxiliary and the Alumni Association. All of their contributions cannot be cataloged here.

Accumulating the Funds

By solicitation, the college had accumulated a building fund of several hundred thousand dollars. It had received $750,000 from the joint campaign with Birmingham-Southern College, which was made to secure the grant of the General Education Board. Subsequently the college made a campaign in Birmingham during its building period for funds with which to continue its building and secured about $900,000. The Alabama Baptist State Convention created a capital fund from the proceeds of The Cooperative Program, and the college to date has received from that source $3,435,000. The old campus property was sold for $500,000.

It will be noted that the larger part of the financing of the program for the development of the new campus came from the Alabama Baptist State Convention's capital funds program. The initiation of this program and the appropriation of the funds from it to Howard College are evidences of the fine support given the college by the Baptists of the State of Alabama.

After the payment for the site, for the installation of utilities, and for the paving of the driveways and walkways, there remained cash on hand of approximately $500,000, which was the estimated cost of the administration building. The president suggested that the contract for this building be let.

The building committee, however, did not consider it wise to begin the erection of buildings with such a limited fund. The old campus and the new campus were so far removed from each other that it was not practicable to do part of the college work on each campus. Rather it was the opinion of the building committee that sufficient funds should be on hand to assure the construction of a sufficient number of buildings to move the entire college work to the new campus before the erection of any building was commenced. This problem was presented to the Alabama Baptist State Convention.

Contribution of the Alabama Baptist State Convention

In preparation for the presentation of this problem to the Convention, the architects made sketches of the proposed buildings needed to move all the college work to the new campus; prepared a campus map showing the driveways and walkways which had been paved and the location of each proposed building; and gave an estimate of the cost of the work, which was approximately $7,500,000.

The Convention was asked to consider whether or not it would approve this great undertaking and assure its aid in financing it. By unanimous vote the Convention approved the plan of development of the new campus, the $7,500,000 expenditure, and voted for the development of the college campus a large portion of its capital funds for a 5-year period.

The Convention also requested the board of trustees to proceed with the construction of buildings as rapidly as finances would permit. This action of the Convention relieved the building committee and the board of trustees of the responsibility of beginning the erection of buildings with a limited amount of funds, and it also committed the Convention to a considerable part of the financing of the program.

Soon after the approval of the proposed development by the Convention, the contract was let for the erection of the administration building at a cost of something over $500,000. This building is now known as Frank Park Samford Hall. The construction of this building encouraged greatly the subscriptions of new funds by individuals, and it also increased considerably the collections of past subscriptions. The funds from sources heretofore mentioned have enabled the college to continue its building program until this day. The college has completed 10 beautiful buildings at a cost of $9 million, which figure includes streets and land improvements as well as buildings, and has under construction another building which when completed will have cost $1 million.

Borrowing From the College Housing Fund of the Federal Government

The college purchased its site, made its improvements, and constructed its buildings on a cash basis, except for the two dormitories, which cost approximately $2 million. The money for the dormitories was secured through the Housing and Home Finance Agency of the U.S. Government under the College Housing Act. By cash it is meant that only temporary loans were secured in anticipation of assured funds which would be available within a few months.

The president's residence, a short distance from the campus site, was purchased with the proceeds of a bequest to the college. The owner from whom this property was purchased made a price which, in effect, constituted a substantial gift.

Financing Current Operations

In a financial undertaking of such magnitude and under the existing conditions, it was realized that there might be a tendency to sacrifice the financial intertst of the members of the faculty to accomplish the great goal. To prevent this there were set up two budgets—one a building budget and the other the operational budget of the college—and the building budget was not permitted to infringe upon the operational budget. During this period faculty salaries were raised, social security was adopted, a policy was taken with an old line insurance company to provide an annuity for retired faculty members, and another policy was taken with an old line insurance company to provide sickness and hospital benefits for the faculty and employees.

Planning the Move

When it became apparent that the college would be compelled to move before the master plan of development could be completed, the faculty building committee was requested to review its original recommendations and advise the minimum number of buildings needed in order to move, indicating the number of classrooms and laboratories to be used during the hours of peak load for a student body of about 1,200, the enrollment then anticipated for the target day for the move to the new campus. The committee considered that two laboratory buildings would be necessary for the initial operation. Laboratories not needed at first could be used as classrooms, without the laboratory furnishings and with the plumbing stubbed at the wall or floor. The initial needs totaled 42 classrooms and 18 laboratories.

At the time of the move in the summer of 1957 the college was compelled to use some space in a temporary way. The main floor and a daylight basement of the library building were assigned to the library. This space devoted to library use approximately four times that which had been used by the library at the old campus. The construction of the new library was such that the two upper floors could be reached without entering the space used for library purposes. These two upper stories were temporarily divided into classrooms and a small auditorium. It was realized that a library building should be used only for a library, but circumstances required otherwise and this temporary arrangement enabled the college to move all its work to the new campus. Subsequent erection of other buildings is permitting the relinquishing of these two floors to the library.

Before actually beginning the moving operations, it was necessary to survey the existing equipment on the old campus for that which was to be moved to the new site. It was also necessary to determine the room on the new campus to which each specific piece of equipment was to be moved. When that survey was made, all equipment was labeled specifically for a particular office or room on the new campus, by building and room number. This was done for all equipment except tablet-arm chairs.

There were 12 fully equipped laboratories on the old campus from which all desks, furniture, and laboratory supplies had to be moved. The unique problem in disconnecting plumbing, disassembling laboratory tables, and reassembling after the move necessitated employment of a local contractor who specialized in moving and installing laboratory desks and other furniture. It subsequently developed that this same contractor was the successful bidder on the installation of the new equipment purchased for the laboratories on the new campus.

Even though the bedroom equipment was built-in during the construction of the residence halls, it was necessary to move lounge furnishings, chests, and certain other items to the new location.

Preliminary inquiries to the local movers resulted in the mention of estimates of cost that far exceeded what the college had considered that it was able to pay. Because of this problem it was then decided that the college personnel could do the moving.

The timing of the move was of considerable importance. The summer session had been arranged with longer class sessions so as to be concluded after two 5-week terms. Also in that particular year, 1957, the opening date of the regular session was postponed by 1 week. This provided 5 weeks in which the college could be moved after the close of the summer session.

With the laboratory personnel packing all the laboratory equipment and with many of the office personnel packing office supplies in advance of the moving date, it was possible to proceed immediately after the termination of summer classes and to conclude the moving process within the 5 weeks, using all the college trucks, purchasing a few conveyors, and renting one tractor trailer truck for that period of time.

Some additional personnel was necessary for the loading and unloading of the trucks. Students and faculty members volunteered to join the moving activity at a nominal cost to the college. At first, the moving process seemed to be a monumental and nearly impossible task. However, when it was broken down into assignments over a large group of people, and given adequate supervision, it yielded, like all other difficult tasks, to a simple formula of plenty of hard work and planning.

Moving the Library

The newly appointed librarian, F. Wilbur Helmbold, without the advantage of previous experience, planned and executed the moving of the library while continuing uninterrupted service to the students and with no more than 18 hours' delay on research material.

With the new bookstacks and furniture ordered well in advance and installed before the beginning of the moving operation, the librarian was able to compute the approximate formula for an expansion of about 100 percent in the circulation stacks, a slightly smaller expansion in the shelving area, and an approximately 300 percent expansion in the reading areas. After the shelving area was calculated and plotted on diagrams, the holdings of the old library, including all its miscellaneous collections, were surveyed by categories, by areas, and by departments. On the basis of the shelves available in the specific areas in the new library, the categories, areas, and departments were assigned to their prospective places in the new library, with proper consideration for the need for broader shelves or wider spacing between shelves, that is, for large art books, etc.

The actual operation was performed by two crews of workmen. Each crew consisted of one faculty member and four student assistants. The librarian coordinated the work between the crews and between the two campuses. The faculty members were chosen for strong orientation in the use of library materials and for a meticulous sense of organization in their own scholarly activities.

Initially, both crews worked on the old campus for about a week, placing books in the boxes, sealing them with tape, and numbering them according to the previous plan for shelf arrangement. Hundreds of packing boxes were obtained from the incoming shipments of shelves previously installed on the new campus. Thus each had the approximate size of a standard shelf of books. The boxes were handled in numerical rotation to their destination.

After the first week the crews were divided. One worked in the new building, unloading, while the other remained on the old location. Through the use of both motorized and gravity conveyors, materials were moved directly out of second-story windows and basement locations, avoiding the use of stairways. By planning two trips a day, each involving approximately 100 cartons of books, the moving operation, though spread over a long period of time, provided for almost immediate availability of any book that had been moved.

The card catalog, the tables and chairs, the reserve room materials, the periodical collections, and the old shelving were all retained on the old campus for immediate use by the summer students and faculty. Those items were then moved to the new campus after the summer session.

Through such an arrangement the library was fully ready for use at least 1 month before the opening of the fall semester and 1 week after the close of the summer session on the old campus. All of this was accomplished with a minimum of expense and with a minimum use of moving equipment, though it made long work days for the librarian and his associates. (Incidentally, the librarian believes that no more rapid way could be found by which he could acquaint himself with the book collection in the Howard College Library.)

In establishing the goodwill essential for the success of such a great project as a college move, it is necessary to have the support of the college faculty and of the student body. From the facts as stated here, it is evident that the college had the active and loyal support of the faculty. It also had the cooperation of the student body as messengers of goodwill to all parts of the State.

Three persons who were assigned leading roles in planning and moving from the old to the new campus also aided in the preparation of this article. Dr. John A. Fincher, Dean of the College, was largely responsible for all faculty studies and other participation. Wilbur Helmbold, Librarian, arranged the method of transferring the library. H. Evan Zeiger, Business Manager, supervised the handling of all equipment and furnishings moved to the new campus.

Conclusion

As this is a case study, it has emphasized certain problems which would not arise with a tax-supported college nor with an independently financed college. However insignificant they may seem to those not familiar with the peculiar relation and dependence of Howard College, their solution was vital to success.

Today the metropolitan area of Birmingham and the Baptists of Alabama have a rightful pride in the beautiful campus of Howard College. The Alabama Baptist State Convention has been increasingly liberal in its support. In September 1960, 500 more qualified students applied for entrance to the college than could be accepted. The campus registration was over 2,000.

In the beginning, the undertaking of financial rehabilitation, the restoring of accreditation, the securing of popular approval for relocating the campus, and the obtaining of sufficient funds to build an entirely new campus were considered by most to be impossible, and the reward was greater than many anticipated. One by one each obstacle was removed until finally there was a general agreement that success was assured.

Chapter IX

ALTHOUGH ITS TRUE SIGNIFICANCE has only recently been realized, the urban university and the city are natural partners in urban renewal and redevelopment activities, at least with regard to the university community. The campus, built to last and kept urbanely manicured, is by nature anomalous to the average city neighborhood whose private dwellings, tenements, commercial establishments, and industries are usually conceived for the current generation only. Deterioration sets in early and accelerates as the futility of the effort of any one owner in putting money into maintenance or renewal becomes evident. The most improvident owner becomes the pace-setter in the race toward slumdom. Only massive corporate action will arrest the process of decay.

The classic example of cooperative, energetic, and effective measures initiated by the administration of the university and implemented by public approval and civic authority is in the Hyde Park-Kenwood project of Chicago in the neighborhood of the University of Chicago. In the case to follow, Julian H. Levi, Executive Director of the South East Chicago Commission, documents the steps that were taken to arrest the growth of the slums and initiate a cycle of restoration before the disease became incurable.

In this instance there were differing degrees of blight, each requiring individual treatment, and differing degrees of pertinence to the university, measured mainly by the proximity to the campus proper. The city was concerned with the whole area of southeast Chicago; the university, with limited funds, had to concentrate mainly on neighborhoods inhabited by its faculty and students. However, due to the enactment of Section 112 of the Federal Housing Act in 1959, the money spent by the university on its own properties within the previous 5 years qualified for matching Federal funds for the city's wider redevelopment operations.

As dramatized by Mr. Levi's documents, the job was not an easy one. First the aroused people of the area had to be given a vehicle of expression. This vehicle became the South East Chicago Commission. Then the existing restrictions, compliance with which would prevent abuses leading to accelerated deterioration, had to be enforced. This took organization. Properties which had deteriorated too far to be salvaged, had to be acquired, the occupants relocated and the structures demolished. This took money. Finally, the whole area had to be planned for redevelopment with balanced provision for decent homes, for comfortable apartments, for parks, for schools, for churches, for social agencies, for police and fire stations, for playgrounds, and for shopping centers.

There was organized resistance. Opponents who opposed it on many different grounds had to be heard. Hard-headed realists had to be persuaded.

Not only did the public authority have to be invoked at the city level but State statutes had to be amended and interpreted so as to cover the situation. The qualifying requirements of the Federal Housing Act for Federal aid had to be met.

The University of Chicago thus has pioneered in a project of sufficient scope to offer a pattern of action for many another urban university which finds itself in a similar predicament. It used the talents of its faculty and staff in such a way as to refute idle insinuations that professors are good only for ivory towers or ivy-covered walls. It showed that the urban university can be and is a vital part of its community, its city, its State, and its Nation, rather than an island of highbrow superciliousness.

Expanding the University of Chicago

By
Julian H. Levi

Executive Director, South East Chicago Commission

IN THE LAST DECADE of the Nineteenth Century, at the time of the founding of the University of Chicago, a land company offered to give property for the enterprise if it would settle in Morgan Park, a suburb of the city of Chicago. The founder and the organizers of the University of Chicago determined otherwise. They determined that the university they sought to establish should be an urban, not a suburban, university: part of a city supported by the facilities and opportunities of urban life and, in converse, affected thereby.

Historical Background

Although the University of Chicago began with a campus limited to three square city blocks, John D. Rockefeller, Sr., with prescience, recognized that the institution he was founding would require far more area. Thomas Goodspeed, in his history of the University of Chicago, tells the story:

> In the first days of the University the enlargement of the site from three blocks to four, an addition of six or seven acres, was looked upon as a most important and significant step in expansion. It was a great step in a transformation which changed the character and scope and outlook of the young institution. Compared, however, with the enlargement of the site in this second period of expansion, it was insignificant. This second movement in site enlargement was a progressive one. It had a very small beginning. Immediately following the raising of the million dollars in ninety days in Chicago in 1892, the Trustees purchased the corner of Fifty-eighth Street and Ellis Avenue, the site on which the Press Building was later erected. In 1893 John Johnston, Jr. gave to the University the site for the Observatory at Lake Geneva, more than fifty acres of ground, to which small pieces were added from time to time by purchase, increasing the grounds to seventy-one and a half acres. Early in 1894, lots were purchased on the northeast corner of Fifty-ninth Street and University Avenue on which the President's House was built. In 1898 Mr. Rockefeller and Mr. Field united in adding to the site the two blocks north of the central quadrangles, to be used for athletic purposes. No name being officially given to these grounds they were, for a number of years, called by the students and the public Marshall Field. In 1914, however, the Trustees, responding to the desire of the students and alumni that their admiration and affection for the "Old Man"[1] might receive recognition, formally and officially made the name Stagg Field. In 1901 Mr. Rockefeller purchased for the University, as a location for the power plant, the west half of the block between Ingleside and Ellis Avenues and Fifty-seventh and Fifty-eighth Streets, and Mr. Ryersen, about the same time, presented most of the east half of the same block. The year 190[illegible] also marked the gift by Mr. Rockefeller of the entire block south of the one just named, thus protecting the quadrangles on the west from any possible undesirable occupancy. For this same purpose—protecting the quadrangles—the three hundred feet south of Fifty-seventh Street, opposite the Reynolds Club House and Mandel Assembly Hall, were purchased. During the years 1901 and 1902, the Scammon block was secured as the site of the School of Education.

---

[1] Amos Alonzo Stagg.

> Meantime Mr. Rockefeller, looking far into the future, and anticipating the continued development of the institution he had founded, entered upon a series of transactions fairly bewildering in their promise of steps in expansion yet to be made. He instructed Major H. A. Rust the University business manager, to begin to purchase for him lands in any and all the blocks fronting south on the Midway Plaisance for a distance of about three-quarters of a mile, from Washington Park on the west to Dorchester Avenue on the east. Purchases were to be made as quietly as possible through different agencies, so that a prohibitive rise in the price of real estate might not take place.
>
> In February, 1903, Mr. Wallace Heckman was appointed business manager to succeed Major Rust, who, having reached the age of seventy, had resigned after more than eight years of useful service. The commission to continue these purchases of land was now transferred to Mr. Heckman and was so industriously executed by him that in December, 1903, Mr. Rockefeller gave to the University lands north of the Midway Plaisance, which, in the letter of gift, were estimated to have cost fifteen hundred thousand dollars. Mr. Heckman was encouraged to continue his purchases, and in the end the University found itself in possession, lacking perhaps four hundred feet front on said streets, of the entire ten blocks from Washington Park to Dorchester Avenue, including the whole of the Midway front. There were many dwelling and apartment houses on these blocks, but all were purchased and deeded to the University, the rents adding appreciably to the annual income. The total cost to Mr. Rockefeller of these purchases north of the Midway was one million, six hundred and forty-seven thousand dollars.
>
> But this was not all. Mr. Rockefeller seems to have determined, while he was about it, so to enlarge the University grounds as to make provision for any possible future expansion. Mr. Heckman, therefore, was encouraged to transfer his purchasing activities to the blocks fronting on the Midway Plaisance along its southern boundary. This he was not backward in doing, and pushed the good work so successfully that in a few years he had secured the Midway front on the south for the entire distance covered by the holdings on the north side, about three-quarters of a mile. When these lands south of the Plaisance were all turned over to the University, it was found that these extraordinary purchases north and south of the Midway Plaisance had, together, cost Mr. Rockefeller three million, two hundred and twenty-nine thousand, seven hundred and seventy-five dollars. As has been pointed out this was a step in expansion taken by the Founder himself on his own initiative. Although there was among the Trustees more or less knowledge of what he was having done, no one had any positive assurance that the purchased blocks would be given to the University. They were purchased for Mr. Rockefeller. They belonged to him to do with as he pleased. The University did not ask him for them. The purchases and the successive gifts were his own acts, quite uninfluenced by anyone connected with the University. When these purchases were added to the University grounds the new Chicago campus was found to comprise not quite a hundred acres.[2]

Accordingly, in 1951 the campus of the university consisted of approximately 100 acres, lying on both sides of the Midway Plaisance between 55th and 61st Streets. In the 60 years since the founding of the institution, more than $200 million in capital facilities had been built.

From the early days of the institution, the faculty of the university resided within the university community. That fact was one which the university prized. Chancellor Robert M. Hutchins, in 1950, aptly put the point:

> Today a university can consider itself fortunate if its members live in the same neighborhood and have frequent social contacts; if it has an architectual plan that brings the members of the faculty into easy professional association and an academic organization that requires them all, however occasionally and superficially, to consider together the affairs of the university or any other problem outside their specialties. The importance of these items should not be underestimated: for, to take one example, the influence on speculative and practical studies of having the professional schools at a distance, frequently at a great distance, from the universities of which they are nominally a part has been uniformly bad. * * * A university should be an intellectual community in which specialists, discoverers, and experimenters, in addition to their obligation to their specialties, recognize an obligation to talk with and understand one another.

Beginning of the Blight

As early as 1945 the university recognized that the steady deterioration of its neighborhood was a source of pressing concern. Chancellor Hutchins, in his State of the University message for that year, reported:

> For the last fifteen years the University neighborhood has steadily deteriorated, until today, I am ashamed to say, the University has the unfortunate distinction of having the worst-housed faculty in the United States.

And again, in 1949, he observed:

---

[2] A History of the University of Chicago, by Thomas Goodspeed (University of Chicago Press, 1916) p. 336–338.

> Although the matter of housing and the improvement of the University neighborhood is receiving continuing study by the Trustees, insufficient progress has been made. This is one of the urgent problems of the University.

Lawrence A. Kimpton became Chancellor of the University of Chicago in 1951. The neighborhood problem of the University of Chicago was seen by him as one of the great challenges of his stewardship. The burden of this history is to recount how the University of Chicago, under the leadership of Chancellor Kimpton and three successive chairmen of its board of trustees, Laird Bell, Edward L. Ryerson, and Glen Lloyd rose to the twin challenges of a compatible community and an urgent need for campus expansion.

Mass Meetings of Aroused Neighbors

On March 27, 1952, a mass meeting of citizens interested in law enforcement was held at Mandel Hall. That meeting resulted in the appointment of a committee of five, under the chairmanship of Chancellor Lawrence Kimpton.

The committee reported at a second mass meeting on May 19, 1952:

> On March 27 the citizens of our community met together in this hall. Some were frightened, others were outraged by the trend in the community. Not only was crime on the increase, but the Woodlawn and Hyde Park police districts had one of the highest crime rates of any area in the city. People were afraid to be on the streets after dark. Their deep concern and righteous indignation were clearly reflected in the large gathering of the citizenry.
>
> The meeting had a very real and a very great effect that went far beyond what actually occurred in this hall. The city, as a whole, and our city officials were deeply impressed with the sense of outrage and frustration expressed here. And I can tell you that this expression accomplished some real results, in spite of the recent unfortunate occurrences. I venture to say that the Hyde Park District, at the moment, is the best policed area in the City of Chicago. We intend to accomplish the same results in Woodlawn. And then we mean to keep them that way. Our local police captain has retired and been replaced by a police trouble-shooter, Captain Albert Anderson. One can see patrolmen on duty on the streets both day and night, and cruising patrol cars. Sixteen additional foot patrolmen have been assigned to the area for duty on the night shifts, and four women crossing-guards have released four policemen for patrol duty. Some taverns have been closed, and some shabby ones have been cleaned up. Even parking violators are being vigorously prosecuted. In gangland terminology, the heat is on. This much was very definitely accomplished by our last mass meeting and subsequent activities.
>
> Now let's not be fooled by this. There is nothing so illusory and ephemeral as a reform movement—unless the reformers go right on reforming. The only way to keep the heat on is to keep the furnace stoked. And this is the job to which every man and woman in our community must be dedicated.
>
> Another result of our mass meeting was the appointment of the committee which is making its report to you this evening. We began meeting at once. We have talked, at length, both formally and informally, with many persons who have special knowledge with respect to the problems of our neighborhood and their solution. Although, as Dr. Mann points out, this has been the hardest working committee of which he has ever been a member, there are many more persons we should like to have consulted had time permitted.

As the report observed, the committee met day after day between the March and May dates. The committee interviewed more than 30 authorities from various disciplines. It recognized the necessity for a "short-run and immediate objective * * * about which something could be done at once." It then undertook to consider "a long-range program of community development which would keep this lake shore area a decent and desirable place in which to live and do business." Upon that basis it then suggested a program:

> First, we propose the establishment of a permanent organization to be known, tentatively at least, as the South East Chicago Commission. We recommend the establishment of an office in the Hyde Park YMCA Building on Fifty-third Street, with a full-time professional staff. One of the functions of this office will be to act as a listening post for our entire community. Anyone within the community can call or visit the office at any hour and report anything that he or she regards as an irregularity. This permanent organization will have a head who will direct its activities and develop plans for an expanded program of community improvement. The staff will make detailed inspections from day to day, week to week, and month to month, of the operation of the police. It will be their job to determine how many police are assigned to the area, how many squad cars are patrolling the area, and what supervision is exercised over the activities of the force. This, in effect, means that we are going to see that the local police captains do their job.
>
> Not only are we ready to start work in the morning, but the committee is authorized to announce that if the permanent organization is set up, we have a

check for $1,000 contributed by an anonymous donor to turn over to it.

Another function of the staff will be to keep close check on the sale of real estate within our area. It is our intention to watch what occurs when a property changes hands, and, if any move is made toward illegal conversion, we shall, in cooperation with the existing community organizations, raise hell! We can enlist powerful people and groups in the community, mobilize the public-spirited citizens of our city, and enlist the newspapers in our cause. If one or two of these illegal conversions are stopped and publicized, it will serve as a deterrent to future attempts at this kind of exploitation. Nobody is going to make a fast buck at the expense of our community.

We recommend, however, that the Board of Directors give serious consideration to the following possible projects:

1. *Street lighting improvement.* The necessity for improvement in the street lighting facilities was urged by every expert we consulted. . . .

2. *Organization of volunteer police observer corps.* A citizens' volunteer corps could serve on a "spot check" basis as observers of operations at the Hyde Park and Woodlawn police stations.

3. *Tavern survey.* An inspection of all taverns in the community should be made to insure compliance with the law. Violators will be closed through local option campaigns or other action.

4. *Physical survey of the area.* The importance of setting up and maintaining a catalog of the physical condition of the area through a comprehensive inventory on a building-by-building and block-by-block basis was urged by a number of the experts we consulted. . . . This information would reveal all existing conversions and facilitate detection and prevention of future attempts at illegal conversions. In addition, it would provide necessary information for area conservation or rehabilitation programs.

5. *Conservation and rehabilitation.* One of the most challenging suggestions made to the committee was the possibility of an effective conservation and rehabilitation program for specific buildings or even whole blocks or sections of the area. In this connection, I should like to mention the need for planning within our community. There are those who have a deep suspicion of planners, and this is understandable. It is meaningless to build up a big chart or mock-up if the net result is only to sit around and admire it. On the other hand, it is hard to know what you are going to do until there is some over-all plan for what ought to be done. We need new and improved housing in the area. We must try to interest insurance companies and other sources of capital in a program of rehabilitation or orderly conversion of some of the existing buildings in the area and the erection of new housing units. All this inevitably involves some planning and, even more important, doing something about the plan, once it is made. There are already existing agencies which have done a great deal of work in the field of planning, and the new organization should co-operate closely with them.

6. *"Lock your car" campaign.* In view of the fact that car looting and car thefts represent a substantial portion of the crimes in the area, the organization of a "lock your car" campaign, with appropriate reminder "tickets" for violators to be served by youth volunteer check-up crews, was recommended to the committee.

7. *Volunteer crossing guards.* . . . The possibility of using volunteers to relieve patrolmen now assigned to crossing duty should be examined further.

8. *Organization of block groups.* The programs of block organization now being carried on in the area have proved constructive in furthering community stability. These programs should be assisted and expanded, so far as possible through the organizations now fostering them.

9. *Volunteer court observers.* Many of the arrests for crimes committed and prosecutions for illegal conversions come to nothing because of failure of adequate court presentation and follow-up. The resources of the organizations now working in this area need to be reinforced and co-ordinated. Volunteer court observers working with lawyers engaged by the Commission could effect substantial improvement in obtaining convictions and the imposition of proper sentences or fines.

10. *Control of juvenile marauders.* Some more effective program for control and supervision of the gangs of young toughs in the area should be worked out.

11. *Co-operation and co-ordination with other groups.* The Commission will co-operate with such organizations as the Citizens of Greater Chicago, formerly the Big 19, the Chicago Crime Commission, the South Side Planning Board, and other organizations like ours which may be set up in other areas.

Because we believe the details of internal organization should be studied further before setting them up in final form, we are recommending that a temporary or provisional organizing committee or board of directors be designated. This group will direct the activities of the Commission for a period of six months, after which a permanent constitution and by-laws can be adopted by the members and a permanent board of other governing body elected. . . . One of the first jobs of the provisional board, of course, will be to engage the Commission's professional staff. If the Committee's report is adopted this evening, we are prepared to recommend the names of sixty distinguished and representative members of the community who have agreed to serve, and we propose that the additional fifteen members be ap-

> pointed by the provisional board of directors from suggestions made by members of the community. The ballot provides space to enable you to make *your* recommendations for these additional board members.

The University of Chicago left no doubt about its position:

> The University of Chicago has a deep interest and a tremendous stake in our community. We are here to stay, and we are dedicated to the kind of community that is appropriate for our faculty members and our students. Believing in the absolute necessity of getting some kind of permanent organization to work on the problems of crime and law enforcement, The University of Chicago will contribute $15,000 to the Commission's budget for the first year if the community will raise at least an equivalent amount. In addition, the University will pledge at least $10,000 in each of the succeeding four years on the same basis. To enable the office to be opened at once and a staff to be engaged, the University will make available the necessary funds from its first year's contribution.

The permanent nature of the program was emphasized:

> Our activity is going to be permanent and it is going to hit hard. We are not indulging in a passing burst of indignation. We are determined to get something done, now and in the years ahead.

A Committee of Five and a Program

The years which followed filled in the charter of the Committee of Five. The work of that committee in the few weeks between March 27 and May 19, 1952, laid out a course and a program from which there has been no substantial deviation.

The commitment of the University to the South East Chicago Commission was reiterated by Chancellor Kimpton in his State of the University Report of October 14, 1952:

> The neighborhood surrounding the University has come to occupy an increasing amount of concern and energy on the part of both faculty and administration. It is extremely important that we maintain a community in which our faculty desire to live and in which our students will be secure. In order to combat the forces of uncertainty and deterioration at work in the neighborhood, the University has taken the initiative in the organization of the South East Chicago Commission. It is concerned to organize the total community in order to stabilize it and prevent further flight from the area. Its more specific program is to fight crime, prevent illegal conversions, organize the citizenry within each block, and begin a long-term project of neighborhood planning and improvement. This program is designed to supplement the existing activity of the University in making loans to faculty members for housing within the area and in buying up and rehabilitating deteriorated property.
>
> Our tradition at the University of Chicago—of freedom, of unity, and of quality—is a great one. These are difficult times in which to maintain it. The inflationary spiral, the temptation of easy money through trifling service projects, the pressure to forsake principle for popularity, the nagging of a budget that seeks a balance, the human desire to meet all requests with an agreeable affirmative—these forces all conspire to turn us from our proper path. Plato, somewhere in the REPUBLIC, is asked if the heavenly city will ever be realized upon earth, and he answers that we must turn our eyes up to behold the eternal archetype and then down to observe and influence the affairs of men. Only thus can our house progressively be put in order and can we approach the ideal.

The South East Chicago Commission Is Formed

True to prediction, the South East Chicago Commission began business on May 20, 1952. Dr. Ursula Stone, one of the Committee of Five, assumed the responsibilities of the temporary directorship of the Commission. Between that date and September 1, 1952, when a permanent staff had been assembled, certain fundamental policies were developed:

> 1. The Commission's interest in law enforcement would not involve vigilante activities nor the employment of private investigators. Attention would, rather, be directed to detailed, ongoing, statistical analysis of police performance in the area, with particular attention as to the adequacy of the manpower assigned, offenses occurring, arrests made, and the percentage of crimes solved. Dr. D. T. Blackiston, a sociologist of wide background and experience, on September 1, 1952, assumed the responsibility for those statistical analyses. His efforts have accomplished a steady improvement in the level of law enforcement.
>
> 2. The Commission would assume special responsibilities in cooperation with other community organizations, particularly the Hyde Park-Kenwood Community Conference, in the enforcement of the housing, building and zoning codes of the city. Shortly after the organization of permanent staff, the board of directors of the commission authorized the employment of a retired fire captain as the commission's inspector. Although such an inspector had no legal authority or power whatsoever, through the cooperation

of tenants, janitors, and, sometimes, owners, he was able to make inspections of premises about which the commission had received complaints. His detailed knowledge and reports not only enabled the accurate report of facts and complaints where warranted, but also prevented the transmittal of unfounded complaints to the public authorities. Detailed codification of inspection reports, title and mortgage data, carried out under the direction of D. T. Blackiston, eventually developed files at the commission disclosing property ownership, mortgage financing, identity of real estate tax payments, property condition, crimes committed, and place of residence of persons arrested on almost all properties in the area. This unique material was of essential value in subsequent planning programs. Moreover, through cross-referencing by name and address, patterns of activity of known slum operators and their financial resources were exposed.

3. The tasks of community coordination, relationships with real estate management firms and property owners, as well as staff service to the finance committee were assumed by Miss Sarah Wexler in October 1952. The budget of the commission for its first fiscal year was set at $30,000. In subsequent years it was increased to $48,500 per annum. Throughout the existence of the commission this budget has been met. The university, for the first year, in accordance with its commitment, contributed $15,000. In subsequent years its contribution has been $10,000 per annum.

4. In June of 1952 the University of Chicago underwrote a portion of the costs of a special study of the problems of community conservation by the Metropolitan Housing and Planning Council of Chicago. The purposes of such a study were summarized in the letter of transmittal upon its completion on January 31, 1953:

> 1. To determine and define the problems of conservation to ascertain the causes of community disintegration so that efforts for betterment may be directed primarily against these causes rather than the resulting conditions;
>
> 2. To determine a solution, or solutions, since no single formula will satisfy all the varying problems;
>
> 3. To determine new legislative and financial means should present legal and financial methods be found inadequate to develop and maintain community conservation programs;
>
> 4. To determine a program for the effectuation of the proposals involving, in addition to legislative and financial proposals, a method of community participation through existing and new organizations and new procedures.

A. C. Svoboda, assistant treasurer of the university, served on the committee directing the study. Prof. Philip M. Hauser, now chairman of the department of sociology, served as consulting sociologist. The study, comprising some three volumes, laid the foundations of much of the legislation hereafter described.

State Legislation Is Recommended

Following completion of the Conservation Study in January 1953, legislation implementing its general recommendations was introduced into the Illinois General Assembly. This legislation ultimately came to take the following general forms:

1. A recognition that as a matter of public policy the prevention of slum and blight was as much in the public interest as the eradication thereof. This concept, embodied in the Illinois Urban Community Conservation Act, enabled municipalities to create Conservation Boards who, with the authority of the governing body of the municipality, might promulgate and carry out conservation plans for conservation areas. Such plans might provide for:

> (1) land uses, residential and non-residential; (2) improvement, alteration, or vacation of major and minor streets and alleys, provision for restricted service access, and off-street parking; (3) locations and easements for public utilities; (4) community facilities; (5) landscaping and site engineering; (6) building restrictions; (7) recommended construction including new buildings, rehabilitation and conversions, demolition of designated structures, and elimination of non-conforming uses; (8) population density, ground coverage, and number of dwelling units recommended; (9) recommended standards of maintenance, and requirements of applicable health and safety ordinances; (10) zoning and/or rezoning required; (11) costs and financing arrangements of public portions of the plan; (12) recommended time table of various stages of the program; (13) any and all other steps needed to carry out the plan. (Smith-Hurd, Illinois Revised Statutes, Chapters 67½, Section 91.12).

In order to carry out the plan the Conservation Board might acquire properties by right of eminent domain, relocate the persons residing therein, demolish the structures, and sell the cleared land at a write-down price to a redeveloper.

2. In 1941 Illinois had enacted the Neighborhood Redevelopment Corporation Act. As originally adopted, the law provided that any three persons might organize a Neighborhood Redevelopment Corporation to operate within a slum and blighted area; that the corporation might file a plan of redevelopment and, in the event that the corporation plan was approved after public hearing by a special mu-

nicipal commission set up under the act by the municipality and if the corporation had purchased, or acquired options to purchase, 60 percent of the area covered by the plan, that thereupon the corporation could exercise the right of eminent domain to acquire the balance of the development area. The financing of the Neighborhood Redevelopment Corporation was to be derived entirely from private sources. No public money was involved. The constitutionality of the act has been upheld in the test case of Zurn v. City of Chicago, 389 Ill. 114 (1945).

The Conservation Report of the Metropolitan Housing and Planning Council dealt with the possibility of using the Neighborhood Redevelopment Corporation Law as a vehicle for community conservation:

> It might be possible to amend the Act so that its field of operations would include conservation areas, retaining the administrative mechanism and the neighborhood corporation idea. Several shortcomings appear, however.
>
> 1. *The program is dependent purely on local initiative.* Whether or not a conservation program is undertaken depends on the willingness of private capital to undertake the program. The availability of capital is liable to be inversely proportional to the needs of the area and there is no guarantee that any conservation program will be implemented if left purely to private stimulus.
>
> 2. *The public role is largely neglected.* It is generally agreed that reorganization of existing powers and additions to those powers are necessary if the governmental and law enforcement framework necessary to conservation is to be achieved. A revamped act along the lines of the present act would completely ignore those aspects.
>
> 3. *The necessary scope of eminent domain is not granted.* The requirement that 60 percent of the land in an area need already be purchased or under option is unreasonable as applied to conservation areas where much less than 100 percent of the area is to be acquired. The granting of eminent domain to private corporations may be unwise from a public policy standpoint if not from a legal one.
>
> Despite these shortcomings, the idea of a public commission cooperating with private corporations in the field of conservation is an attractive one. The possibility of such an arrangement with operating powers vested in the commission will be considered in the section on recommendations.[3]

Nevertheless, Chancellor Kimpton and the Board of Directors of the South East Chicago Commission determined to proceed. They felt that a Neighborhood Redevelopment Corporation device would form a useful vehicle for the investment of private funds and the development of minimum standards of rehabilitation and maintenance in conservation areas. They were also influenced by the fact that despite the possible enactment of the Urban Community Conservation Act, no method of public financing had been developed. In fact, public financing did not emerge until the enactment of the 1954 Amendments to Federal Housing legislation. Accordingly, amendments to the Neighborhood Redevelopment Corporation Act were proposed enlarging the sphere of operation of a Neighborhood Redevelopment Corporation to a conservation area, providing that the conservation plan could include minimum standards of rehabilitation and maintenance, as well as acquisition, and providing further that the plan would become binding, after approval at public hearing, in the event that the corporation secured the consent of the owners of more than 60 percent of land area affected by the development plan.

The amendments were adopted by the Illinois General Assembly in 1953. On July 13, 1953, Gov. William G. Stratton approved the Urban Community Conservation Act and the amendments to the Neighborhood Redevelopment Corporation Act.

Surveying the Area for Eligibility for Redevelopment

In the summer of 1953 the University of Chicago, the South East Chicago Commission, and the Hyde Park-Kenwood Community Conference acted jointly in requesting the Chicago Land Clearance Commission to undertake an eligibility survey of an area lying east of the university campus between 53d and 57th Streets. Prior to this time, that agency had acted only in areas which were completely slum and blight. The proposal now urged was that slum clearance powers be used in support of an existing community and its institutions.

On November 10, 1953, Chancellor Kimpton, in his report on the state of the University, wrote:

> I come finally to the third of our component parts—

---

[3] Conservation. Volume Three. Metropolitan Housing and Planning Council, p. 254. (January 1953).

> our physical properties and those that closely surround us. And I should like to begin with the problems of our community. . . . They may be the problems that none of us likes to face, those we thought would leave our door if we sat still and pretended we were not home. From the beginning I have regarded the problem of our community as one of our paramount problems.
>
> Two years have done much to change the face and character of our community, thanks to the vigorous leadership of the South East Chicago Commission, in which the University has played an active role. Since many of these improvements are visible to anyone who has lived here for some years, I shall concern myself with some of those that are about to come. New State legislation has been procured whereby neighborhood corporations can organize and through control of sixty percent of the property of an area can obtain eminent domain rights over the remaining forty percent. For the first time, we have a tool with which we can force the improvement of run-down structures, or the demolition of properties that have become slums. Of equal importance is the interest of the Land Clearance Commission in our area. The Commission, operating with Federal, State and City funds, is empowered to condemn as slum a part or the whole of any selected urban area. After condemnation it proceeds to demolish the buildings at public expense and to sell the cleared land at a fair use value or convert it to some public purpose. The Commission is now in the process of surveying our area, and selective demolition will shortly follow that will eradicate the pockets of blight and decay.

Retaining a Professional Planning Service, Marshall Field Foundation Assistance

Upon approval of the conservation legislation, it became clear to Chancellor Kimpton that the university and the South East Chicago Commission would require planning services. Accordingly, in July of 1953 the Chancellor laid the problem before Marshall Field, Jr., and his associates of the Field Foundation. At the invitation of the foundation, a formal proposal was submitted and on October 16, 1953, Maxwell Hahn, Executive Vice President of the foundation, advised the chancellor as follows:

> Dear Chancellor Kimpton:
>
> I am sure that you and Mr. Julian Levi will be pleased to receive this official notice that the Field Foundation has authorized a grant of $100,000, payable over a three-year period, toward the cost of establishing and operating a planning unit to work on the conservation of the University of Chicago-Hyde Park Community. The Field Foundation's check in the amount of $33,333.34, paying the Foundation's grant for the twelve-month period beginning November 1, 1953, is enclosed.
>
> The grant is made in the belief that the over-all program of the University of Chicago and the South East Chicago Commission constitutes a pilot project which can serve as a demonstration to other cities throughout the United States that American citizens have the ability to make their cities what they want them to be. It is the Foundation's understanding that the University and the Commission are committed to the development of a physically attractive, well serviced, non-discriminatory community where people with similar standards may live.
>
> Our board of directors have asked me to state that there is no implied commitment that the Field Foundation would renew this contribution at the end of the three-year period. The Foundation, however, will consider without prejudice, in 1956, the question of a further grant for the period beginning November 1, 1956.
>
> It is customary for the Foundation to request progress reports on projects it aids. These reports should include financial statements on the expenditure of projects funds. We shall plan to give at least thirty days' notice when a report from the University is desired. At the end of each fiscal year, the Field Foundation would like to have a copy of the auditor's report on the records of the project.
>
> Our officers and directors join me in wishing the University of Chicago and the South East Chicago Commission success in the launching of this important demonstration.

This act of generosity on the part of the Field Foundation was the seed from which more than $200 million in new public and private investment ripened.

Upon the advice of Profs. Harvey Perloff, Philip M. Hauser, and Harold M. Mayer of the faculty of the University of Chicago, Jack A. Meltzer, in March of 1954, was employed by the university as Director of the Planning Unit. The choice was a happy one. Although a young man, Meltzer had already achieved distinction as Director of Planning for Michael Reese Hospital. His subsequent career completely justified the confidence placed in him. By April 1, 1954, when the Planning Unit was formally opened, he had assembled a team of able assistants, including Alexander Ogloblin, as his deputy, and Harry Weese, as architectural consultant.

The City Embarks upon Urban Renewal

On March 22, 1954, Mayor Martin H. Kennelly formally announced the inauguration of the "first real demonstation of a program intended to reverse the trends toward deterioration which characterized older communities in most U.S. cities." Mayor Kennelly's formal statement referred to the undertaking as proposing the "most complete 'urban renewal' plan for an individual community ever developed." The whole South East Chicago Area, 39th Street to 67th Street, Cottage Grove Avenue to Lake Michigan, of which the university community was only one part, was selected as the first "officially established model planning project." The Mayor's Housing and Redevelopment Coordinator, the Chicago Plan Commission, the University of Chicago, and the South East Chicago Commission (in close relation with the Hyde Park-Kenwood Community Conference), and supported by the Chicago Land Clearance Commission (the independent slum clearance agency), the Neighborhood Redevelopment Commission (supervising Neighborhood Redevelopment Corporations), the Community Conservation Board (the City Department under the Urban Community Conservation Act), the Chicago Dwellings Association (concerned with middle-income housing), the Chicago Housing Authority (lower-income housing), the Board of Education, and the Chicago Park District were to participate by formal agreement in the preparation of the far-reaching plan for this area.

Within 60 days after April 1, 1954, Meltzer was able to file with the Chicago Land Clearance Commission a detailed 167–page proposal for the redevelopment of the Land Clearance survey area. The frontispiece of that report emphasizes the degree of private and official cooperation which he was able to obtain:

> The cooperation of Mr. James C. Downs, the Mayor's Housing and Redevelopment Coordinator and his deputy, Mr. D. E. Mackelmann; the Chicago Plan Commission, particularly Messrs. Frederick T. Aschman, Executive Director, Mr. John Cordwell, Director of Planning, and Mr. Stewart Marquis, Senior Planner; and, the Chicago Land Clearance Commission, particularly Messrs. Ira Bach, Executive Director, and Mr. Phil Doyle, Deputy Director, is more gratefully acknowledged.
>
> A special debt of gratitude is due Mr. Albert C. Svoboda, Assistant Treasurer of the University of Chicago, without whose advice and knowledge of real estate values this report could not have been written.

On June 28, 1954, the Chicago Land Clearance Commission adopted the requested site designation resolutions. These resolutions, among other things, recited:

> WHEREAS, the South East Chicago Commission, a not-for-profit corporation, has been organized under the laws of Illinois for the purpose of the conservation, rehabilitation and redevelopment of the area bounded by East 39th Street, Lake Michigan, East 67th Street and South Cottage Grove Avenue, of which the area described herein is a part;
>
> WHEREAS, said South East Chicago Commission has proposed that the project area described herein be acquired by the Commission, and has indicated that if said area is so acquired purchases will be available to redevelop said area in accordance with approved redevelopment plans, and that said South East Chicago Commission will continue and intensify its efforts to conserve the larger area, as aforesaid:

The area thus designated consisted of a little more than 48 acres, involving approximately 6½ percent of the total area of the Hyde Park community, approximately 9 percent of the total dwelling units, approximately 8 percent of the total population, and approximately 7.7 percent of the total families within the community as a whole. At the same time the project area contained 41 percent of the total substandard housing within the entire Hyde Park community. It was estimated that of some 4,500 persons to be affected by relocation, 8 percent, or 360 were nonwhite. Of the total number of 1,167 families, 660 had children and 52 of the families with children were members of minority groups. Single persons occupied 686 of the some 1,700-odd dwelling units involved. Only 54 resident owners were involved. Living conditions in the area were indicated by the following statistics of the Chicago Land Clearance Commission:

Dwelling Units and Population [1]

	Project Hyde Park "A" [3]		Project Hyde Park "B" [4]	
	Number	Percent	Number	Percent
TOTAL DWELLING UNITS [2]	1,570	100.0	179	100.0
A. In dilapidated structures, sharing sanitary facilities, obsolescence or faulty arrangement or design, or in structures with excessive land coverage	1,501	95.6	176	98.3
B. In dilapidated structures, sharing sanitary facilities, or obsolescence or faulty arrangement or design	1,453	92.5	149	83.2
C. In dilapidated structures, or sharing sanitary facilities	1,035	65.9	130	72.6
D. In dilapidated structures	758	48.3	100	55.9
E. Sharing sanitary facilities	672	42.8	120	67.0
F. Obsolescence or faulty arrangement or design	1,313	83.6	119	66.5
G. In structures with excessive land coverage	1,494	95.2	156	87.2
H. In nondilapidated structures	812	51.7	141	78.8
TOTAL POPULATION IN PERSONS	4,028	--------	365	--------
TOTAL FAMILIES (2 or more persons)	1,053	--------	82	--------

[1] This table includes estimates for occupied dwelling units not reporting on persons.

[2] Includes single room units.

[3] Hyde Park A Project ranges along Lake Park and westward along East 55th Street several blocks from Lake Park.

[4] Hyde Park B Project extends along the north side of 54th Street from Blackstone to Kimbark.

Progress Is Made

The speed with which the project then moved is indicated by the following chronology:

Chronology of Land Clearance Hyde Park "A" and "B" Projects

Apr. 1, 1954	Planning Unit organized.
June 28, 1954	Chicago Land Clearance Commission site designation resolutions passed by Chicago Land Clearance Commission.
June 29, 1954	Mayor Kennelly announces Chicago Land Clearance Commission resolutions and pledges his support.
June 30, 1954	Chicago Land Clearance Commission site designation resolutions introduced in the City Council.
July 15, 1954	Chicago Plan Commission approved Chicago Land Clearance Commission proposals.
July 20, 1954	Housing and Planning Committees of City Council recommend proposals.
July 28, 1954	Site designation resolution unanimously adopted by the City Council.
Aug. 6, 1954	Site designation resolution passed by the Illinois State Housing Board.
Oct. 25, 1954	Redevelopment plan approved by Commissioners of Chicago Land Clearance Commission.
Nov. 18, 1954	Chicago Plan Commission approves redevelopment plan.
Nov. 23, 1954	Housing and Planning Committees of City Council unanimously approve redevelopment plan.
Nov. 29, 1954	Plan recommitted for further hearing on basis that opportunity for hearing, discussion, etc., had not been afforded.
Dec. 8, 1954	Joint Committee deferred action on plan for ten days.
Dec. 17, 1954	Joint Committee votes to pass redevelopment plan.
Dec. 22, 1954	Redevelopment plan passed by City Council.
Jan. 17, 1955	Redevelopment plan heard and approved by State Housing Board of Illinois.
Feb. 15, 1955	Federal approval Hyde Park "A" Project in the amount of $6,156,625, automatically producing $3,454,049 of city and state aid, for a total of $9,610,674.
Feb. 18, 1955	Federal approval Hyde Park "B" Project in the amount of $391,922, automatically producing $215,001 of city and state aid, for a total of $606,923.

Federal Approval Is Sought

The fight for approval of the project was taken to Washington on July 21, 1954. On that date Chancellor Kimpton: Edward L. Reyerson, Chairman of the Board of Trustees of the University of Chicago; Clarence Randall, a trustee of the University of Chicago; James C. Downs, the mayor's coordinator of Housing and Redevelopment and his deputy, D. E. Mackelmann; J. Ross Humphries, chairman, and Ira Bach, executive director of the Chicago Land Clearance Commission; and Frederick T. Aschman, director of the Chicago

Plan Commission, met with the President and subsequently, with Albert C. Cole, administrator of the Housing and Home Finance Agency.

On September 23, 1954, the Illinois Supreme Court issued twin opinions in the cases of People ex rel Gutknecht v. City of Chicago (3 Ill. 2d 539) and David Zisook v. Maryland-Drexel Neighborhood Redevelopment Corporation (3 Ill. 2d 570). The Gutknecht case upheld the constitutionality of the Illinois Urban Community Conservation Act: the Zisook case upheld the constitutionality of the 1953 amendments to the Illinois Neighborhood Redevelopment Corporation Law. The South East Chicago Commission and the Planning Unit had collaborated in the formation of the Maryland-Drexel Neighborhood Redevelopment Corporation and in the preparation of a proposed redevelopment plan in order that the ground work for the test case be established. William H. Dillon, Counsel to the University in the Maryland-Drexel matter, was also Special Counsel to the city of Chicago in the Gutknecht case. As will be seen, the two decisions were fundamental to further progress.

By November 23, 1954, Chancellor Kimpton in his State of the University message, wrote:

> Even our neighborhood begins to have a new look. The first of a series of plans for the demolition of old and outmoded buildings and for the construction of new and more appropriate housing and commercial areas has been completed over the past year. The plan has been viewed with approval and even enthusiasm by a political hierarchy beginning with the President of the United States. It is hoped that within a year no one will recognize Fifty-fifth Street. New single-family residences will replace the World's Fair walk-ups on the south side of the street, and an efficient and modern shopping center will take the place of the seedy structures on the north side. These things will be accomplished by a combination of government resources and private capital, and already the hope of the new look has stabilized and brightened the community. The new and beautiful headquarters of the American Bar Association has grown up during the year and is an ornament to our community. * * * The neighborhood, like the budget, the curriculum, and the enrollment, is not yet saved, but at least we are on the road to salvation and with propriety can give vent to a mild hallelujah.
>
> Things are better, there is no denying it. Our undergraduate program is reorganized, our economy is stabilized, and our neighborhood is in the process of improvement. In all these things we take satisfaction, and for all these things we give thanks. But the time has come to remind ourselves that great universities are not built merely by balancing budgets, reorganizing curricula, and improving neighborhoods. This is only to remove the underbrush which has been stifling our growth and development, and at last we begin to see the sun. But our really important problems lie before us. We have suffered during this period of readjustment, and we all know it. We have lost some good men; we have been unable to appoint young people who will build the university of the future. We have not been able to expand our laboratories and our classrooms to meet the coming need. Our Library has suffered in its acquisitions and its services to our faculty and students. We have not been able to keep salaries in pace with our inflationary times. We have repaired our house, but our real task is to build a city. It is my hope that we have not become so conditioned to meeting the problems of the moment that we have lost the ability to plan our future. The experiences of the past have thinned and tightened our ranks. Our problem now is to march forward. Our objective is a fairer city—a new and greater University of Chicago.

Application for Federal Urban Renewal Funds

In the latter part of 1954 and the early months of 1955 the planning unit collaborated with the newly appointed Community Conservation Board of Chicago and the office of the Mayor's Coordinator of Housing and Redevelopment in the preparation of an application to the Urban Renewal Administration of the Housing and Home Finance Agency of the Federal Government for the allocation of survey and planning funds for the Hyde Park-Kenwood Urban Renewal Area. The general boundaries of the area thus involved were 47th Street on the north, 59th Street on the south, Cottage Grove Avenue on the west, and Lake Michigan on the east. On March 28, 1955, the City Council unanimously adopted an ordinance approving the filing of the application. Further discussions followed in Washington in which the planning unit participated. On June 4, 1955, Mayor Daley was notified that the application had been approved. On September 14, 1955, following approval, again unanimous, by the City Council of Chicago, the city, acting through the Community Conservation Board, entered into a contract with the Urban Renewal Administration of the U.S. Government, pursuant to which an amount not to exceed $198,680 was to be advanced by the Urban Renewal Administration to defray costs of survey and planning work for the Hyde Park-Kenwood Urban Renewal Project, the first of its kind in the United States. (See p. 120.)

Meanwhile, acquisition, relocation, and demolition began in the Hyde Park "A" and "B" Projects. On May 10, 1955, at the time of the annual meeting of the South East Chicago Commission, the first building was demolished. By the end of 1955, 37 properties had been acquired, 5 had been demolished, options had been taken for acquisition on 41 additional properties, and condemnation proceedings were pending on 57 parcels. Chancellor Kimpton, in his State of the University message, on November 1, 1955, wrote:

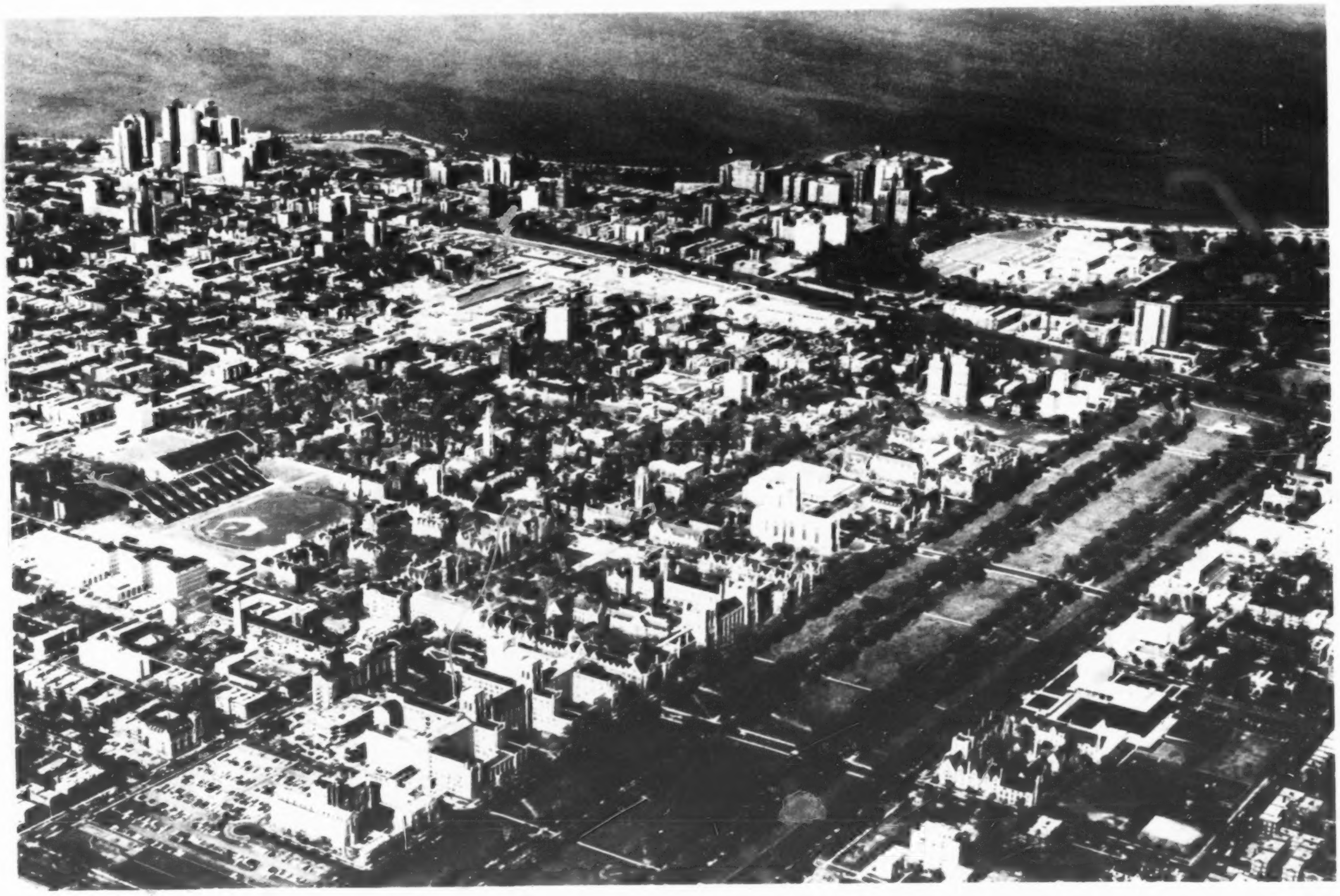
> The final gamble of our University is on our neighborhood. It is a law among the knowledgeable about such things that a neighborhood, once it begins to deteriorate, moves through an inexorable cycle of flight, further decay, and final slum, to be rehabilitated only at the very lowest point through massive slum clearance—in effect, through the replacement of one community by another. It is our gamble that in this community the supposedly inevitable workings of this law can be stopped, the deterioration in mid-cycle can be interrupted, and rehabilitation can begin a full quarter of a century before its time. To make this gamble succeed, we have enlisted the aid of our community, courts, police, politicians, newspapers, city, state and nation. It is one of the prominent objectives of the campaign, and money is being received from individuals, foundations and corporations to buy and rehabilitate deteriorated properties. The most substantial donation to date comes from public funds, with the Federal Government, the State of Illinois, and the City of Chicago among them putting up over $10,000,000 to acquire and demolish some forty-seven acres of deteriorated property in the center of Hyde Park. The machinery of government moves slowly, and the area has suffered through the time lag, but, even so, through constant needling the program has moved faster than any government clearance project in the history of the country. Perhaps more important than anything else, our community has earned a reputation among dubious characters of being a poor place in which to commit a crime or operate a slum. The crime statistics in our district show a sharp decline over the last two years, and there is no enterprising landlord of deteriorated properties who would not gladly move his wretched business, if he could, to another part of the city. Redevelopment corporations are being organized all over the area by which debilitated properties can be acquired under eminent domain. It is a large and carefully calculated gamble, and the stakes are very high. At stake is the nature of our University and the pattern of urban life in America for the balance of the Twentieth Century.
>
> The history of our University over sixty-two years has been a series of brilliant, speculative, forward movements, followed by periods of retrenchment and consolidation. Each has suited its own time, and together they have conspired to make the University of Chicago one of the great universities of the world. We have moved through our needed program of building sound foundations beneath our impressive superstructure of men and the materials for teaching and research. The time had come in 1954–55, with a cautious but speculative eye upon our destiny, to begin the great gamble in men, money, students, and community. Our quality, our leadership, and our freedom are at stake. As we have always won before, so we shall win again.

The Hyde Park-Kenwood Urban Renewal Plan Is Launched

On January 12, 1956, the city of Chicago, under the authority of the Community Conservation Board, entered into a contract with the University of Chicago whereby the planning unit was engaged to prepare the Hyde Park-Kenwood Urban Renewal Plan. The contract provided that the plan was to be done in two stages:

> 1. A preliminary project report for the purpose of indicating the feasibility of the project and the general direction in which it would proceed; and
>
> 2. Assuming the approval of the preliminary project report, a final report.

The planning unit completed the first phase of the Urban Renewal Plan and delivered it to the Community Conservation Board on July 5, 1956. On August 28, 1956, the Community Conservation Board approved the preliminary project report and forwarded it to the regional office of the Housing and Home Finance Agency. On August 2, Mayor Daley appointed the local community council as provided by the Illinois Urban Community Conservation Act. This Council, consisting of 11 residents of the Hyde Park-Kenwood area, had the function of assisting the Conservation Board in the preparation of the plan (ultimately approved by majority vote) and then assisting in the administration of the plan. On December 20, 1956, John P. McCollum, regional administrator of the Housing and Home Finance Agency, advised the Community Conservation Board that the preliminary project report had been accepted and that an increased amount, totaling $25,835,000 in Federal funds, had been reserved for the project.



University of Chicago Campus and Redevelopment District with Lake Michigan in the background.

On December 27, 1956, the Community Conservation Board directed that final survey and planning work get underway.

Filing the Development Plan With the Redevelopment Commission

Undertaking of the Urban Renewal planning was a major enterprise. Total expenditures by the university substantially exceeded its reimbursement under the contract. Since the university undertook the preparation of the plan it regarded itself as disqualified from specific provisions for its benefit within the plan. Its total commitment to the ideal of a compatible community, as described in the instrument of gift of the Field Foundation, justified the enterprise.

Application of the 1953 amendments to the Neighborhood Redevelopment Corporation Act began on April 29, 1956, when the South West Hyde Park Neighborhood Redevelopment Corporation filed its development plan and its application for approval thereof with the Neighborhood Redevelopment Commission of Chicago. All of the stock of that corporation was owned by the University of Chicago. The plan of development filed by the corporation provided:

> 1. That the corporation, with its own funds, acquire all the properties in the area between 55th and 56th Streets, Cottage Grove to Ellis Avenues, comprising an area of approximately 13.22 acres, exclusive of streets and alleys. Upon acquisition the corporation would sell the property, at its cost of acquisition, to the University of Chicago. The university, would, thereupon, develop the area for the housing of married students and other campus purposes.

> 2. That in the larger development area, generally described as 55th to 57th Streets, Cottage Grove to Woodlawn Avenues, under a program of rehabilitation and conservation property owners would agree to bring all properties up to current standards and would be bound to future maintenance of these standards.

Costs of acquisition of properties, demolition, and site clearance, all of which would ultimately be borne by the University of Chicago, were estimated at $2,500,000. New construction was estimated at $1,800,000--again to be borne entirely by the university. The area of proposed clearance involved approximately 93 structures, containing 582 living units. Evidence of substantial deterioration and substandard housing had existed since the 1940 census. The overwhelming number of structures showed evidence of deterioration.

The corporation obtained the consents to the plan of the owners of more than 60 percent of land area, as provided by the statute. After notice and publication, hearings before the Neighborhood Redevelopment Commission of Chicago began on September 28, 1956. The development plan, including both the rehabilitation and acquisition sections, involved 299 parcels of property. Twelve of the owners of the 299 parcels vigorously opposed the approval of the plan upon various grounds. They challenged the eligibility of the area, the necessity for clearance, and the provisions of the development plan permitting acquisition by the university. After exhaustive hearings and arguments, nevertheless, on November 28, 1956, the Neighborhood Redevelopment Commission entered an order approving the plan of development, authorizing the issuance of a certificate of public necessity to the corporation, authorizing the corporation to carry out the plan. Appeal to the court, permitted under the statute, was taken by the 12 dissenters on December 31, 1956.

Land Acquired for Hyde Park "A" and "B" Projects

The Chicago Land Clearance Commission, during 1956, acquired 147 of the 167 parcels involved in the Hyde Park "A" and "B" Projects. Of the 20 parcels remaining to be acquired, 10 were covered by agreements on price and executed options, condemnation judgments had been entered on 2, leaving only 8 properties where condemnation proceedings were to be completed or where price negotiations were still underway. On June 20, 1956, the city council of Chicago adopted an ordinance approving a disposition plan under which a developer would be selected for the Hyde Park "A" and "B" Projects. Accordingly, on July 24, 1956, the Chicago Land Clearance Commission advertised for bids, returnable September 24, 1956. The University of Chicago and the South East Chicago Commission, in accordance with their earlier commitment, undertook to find developers and encourage them to bid. The enterprise was successful. The Land Clearance Commission made redevelopment history in being able to select among five bidders.

The University's Campaign for Funds

The university launched an intensive campaign for building fund money. Chancellor Kimpton, in his State of the University message on October 30, 1956, after referring to the success of the university's capital needs campaign, wrote:

> Just what do we propose to do with all this money? With an optimism which has characterized this University since its beginning—for we did not know the campaign's results when we built the budget—we increased our expenditure for the year 1955–56 a million and a half dollars over the previous year, about half of it going into instruction and research and a quarter each into student aid and plant maintenance and operation. We risked an initial budget deficit of $1,200,000, but, because of our increased earnings, it turned out to be less than half of that; and, of course, if we include unrestricted campaign contributions, we had an enormous surplus. In the preparation of the budget for the year 1956–57, we have added more than a half-million dollars to the salaries and annuities of our present faculty and have put another half-million into staff additions, replacements, and service and equipment. The unsightly and dangerous "pre-fabs" have been cleared away behind Ida Noyes Hall, where a new dormitory for women students will be built—the first new housing for women to be built on this campus in this century. We have acquired apartment buildings in the neighborhood and have begun what we hope will be an orderly transition of our married graduate-students from the G.I. housing to more permanent and more comfortable quarters. We have even started the machinery under the Illinois Redevelopment Act for the acquisition and demolition of a four-block-square area between Fifty-fifth and Fifty-sixth, Ellis to Cottage Grove, to build a graduate-student housing project. And, speaking of the neighborhood, the Hyde Park clearance and re-

> development program is coming along. At the moment it looks like Berlin immediately after the late war.

The City Council Approves the Site Plan

In January of 1957, Mayor Daley announced that he would submit the revised Chicago Land Clearance plan for the redevelopment of Projects "A" and "B" to the city council. The plan, as modified, clearly followed the suggestions of Webb & Knapp, one of the bidders. It envisaged the construction of a new shopping center, 250 town houses, and 2 apartment buildings containing 550 units. Prior to this time, the university and the South East Chicago Commission had commenced the organization of a group of potential buyers of town houses. Ultimately more than 100 families associated themselves with this enterprise. In March of 1957 the city council, after public hearing, approved the modified redevelopment plan and then, in July, accepted the Webb & Knapp site plan and bid for purchase of the cleared land.

Simultaneously, in 1957 beginning in January, the local community council announced plans for sectional meetings throughout the entire Hyde Park-Kenwood community on the preliminary Urban Renewal Plan. By May the 7 hearings had been completed, more than 900 people had attended the hearings, and 109 persons made statements concerning the plan. In October the final draft of the Urban Renewal Plan had been completed and distributed to the various city agencies for agency review of program and financial commitment. Other institutions within the community began rebuilding and expanding. St. Paul's Episcopal Church broke ground for a new church building in the Kenwood community. The Chicago Osteopathic Hospital and College built a new basic science building.

Further Hearings and Approvals

On February 13, 1958, the Community Conservation Board of Chicago transmitted the Hyde Park-Kenwood Urban Renewal Plan to the Conservation Community Council. Thereupon the Conservation Community Council, after publication, held hearings on March 12th and 13th, 1958. The Conservation Community Council approved the Urban Renewal Plan on April 14, 1958, transmitted the plan to the Community Conservation Board of Chicago and approved changes on July 21, 1958. On September 8, 1958, the Housing and Home Finance Agency of the Federal Government reviewed the Urban Renewal Plan and approved it as conforming to Federal requirements. Hearings before the Housing and Planning Committee of the City Council of Chicago began on September 22, 1958, and continued until September 30, 1958. On October 22, 1958, the Committee on Planning and Housing recommended approval of the plan and on November 7, 1958, the City Council, by a vote of 54 to 0, approved the plan.

The approval came, however, only after bitter controversy and argument. The scope of the removal plan made this inevitable. The total area covered by the plan, exclusive of streets and alleys, involved 591.4 acres, of which 101.2 were to be cleared; 3,077 structures, of which 630 were to be acquired and cleared; 29,321 living units, of which 5,941 were in structures to be acquired and cleared.

In terms of financing, the project was equally imposing. The estimated net cost of the project was $36,675,717. The Federal capital grant, covering three-fourths of the write-down and including an amount for aiding and relocation of site residents, was $28,312,062. The city contribution, estimated at $9,255,480, was composed of $7,407,725 of works-in-kind and $1,847,755 in bond cash. The assumption by the University of Chicago of planning costs in excess of the contract reimbursement enabled the city to proceed on the three-fourths, rather than two-thirds, matching basis.

The plan provided for great expansion of public facilities; 30.4 acres of cleared area was to be made available to the public agencies as follows:

Summary of Land To Be Sold to Public Agencies

Agency	*Square feet*
Board of Education	617, 462*
Chicago Park District	627, 594
Municipal Parking Authority	6, 430
City of Chicago (civic center)	50, 071
City of Chicago (Fire Department)	20, 500
Total (30.4 acres)	1, 322, 057*

*207,251 of this is reserved for future sale to Board of Education.

An area of 49.1 acres was to be available for residental re-use; 8.1 acres for commercial use. New institutional uses were provided:

(a) St. Thomas Apostle Church and School. 11,999 square feet of land on the northeast corner of 55th Street and Woodlawn Avenue.

(b) St. Paul's Episcopal Church. 37,500 square feet of land on the northwest corner of 50th Street and Blackstone Avenue.

(c) Hyde Park Department, Young Men's Christian Association. 15,000 square feet of land on the southeast corner of 53d Street and Dorchester Avenue.

(d) George Williams College. 77,268 square feet of land on either side of 53d Street on the east side of Cottage Grove Avenue.

(e) Chicago College of Osteopathy and Osteopathic Hospital. 98,500 square feet of land in the block bounded by 52d Street, 53d Street, Ellis Avenue and Berkeley Avenue; and 16,094 square feet of land on the northeast corner of 53d Street and Ingleside Avenue.

(f) Jewish Children's Bureau. 210,060 square feet of land on the northeast corner of 55th Street and Cottage Grove Avenue for the development of a treatment center for disturbed children.

(g) The Church Home for Aged Persons. 27,135 square feet of land on the northwest corner of 54th Place and Ellis Avenue.

(h) Chicago Police Department and Ward Office. 50,071 square feet at the southwest corner of 52d Street and Lake Park Avenue.

(i) Chicago Municipal Parking Authority. 6,430 square feet at the northwest corner of 53d Street and Lake Park Avenue for a municipal parking lot.

(j) United Church of Hyde Park. 18,750 square feet on Harper Avenue between 52d and 53d Streets.

(k) Art and Cultural Center. 46,798 square feet at the northwest and southwest corner of 57th Street and Stony Island Avenue.

(l) First Baptist Church. 15,016 square feet at the southwest corner of 50th Street and Ellis Avenue.

(m) Chicago Fire Department. 20,500 square feet on the northeast corner of 55th Street and University Avenue for a fire station.

(n) Augustana Lutheran Church. 33,414 square feet between Woodlawn and Kimbark Avenues south of 55th Street.

(o) Chicago Child Care Society. 18,904 square feet on University Avenue between 54th Place and 55th Street.

Mandamus Denied

The Superior Court of the United States on October 20, 1958, denied a motion of Troy St. Elmo and Angie Ree Cobb for leave to file a petition for writ of mandamus in the case they had brought in the District Court of the United States against the South West Hyde Park Neighborhood Redevelopment Corporation. With this action, all litigation attacking the order of the Neighborhood Redevelopment Commission of Chicago approving the South West Hyde Park plan came to an end. The litigation involved not only a proceeding in the State Courts, the dismissal of which was sustained by the Illinois Supreme Court on two occasions, but a fresh action in the District Court, again dismissed, and now terminated by the order of the Supreme Court of the United States.

The Chicago Crusade Spreads

On February 18, 1957, Chancellor Kimpton wrote to Presidents Nathan M. Pusey, of Harvard; Grayson Kirk, of Columbia; Gaylord P. Harnwell, of the University of Pennsylvania; A. Whitney Griswold, of Yale; and James Rhyne Killian, Jr., of Massachusetts Institute of Technology. The letter, in part, said:

> We at the University of Chicago have been struggling for the past five years with enormous problems relating to the condition of the community which surrounds our campus. I believe that we agree that a healthy university cannot exist in a slum, and I believe all of us are threatened in this regard. Since our problems are in no way unique, and since all of us have made progress in one way or another, it has appeared to me that we might obtain some value in exchanging our experiences. I rather suspect too that there is some federal legislation that we might ponder with the idea of seeing if we could not get forward on some cooperative program.
>
> Accordingly, I am suggesting that you and the appropriate person on your staff meet with a group similarly concerned in New York City on the morning of April 12th at 9:00.

The meeting was held. Dr. Pusey represented President Killian of Massachusetts Institute of Technology, as well as his own university. President Griswold was unable to attend but sent representatives. The conclusion of the meeting was that the matter should be placed before the Association of American Universities, and on October 23, 1957, the *New York Times* reported that:

> A nation-wide study to determine what can be done to halt the deterioration of neighborhoods adjacent to urban universities was announced yesterday by the Association of American Universities.

The article quoted Chancellor Kimpton:

> Historically, university communities have been attractive neighborhoods with the standards outlined,

> Dr. Kimpton noted "However, the growth of American cities, the obsolescence and deterioration of aging structures, the development of mass transportation—particularly the automobile—have all combined to produce the decline of neighborhoods about many American urban universities.
>
> "At the same time, the gigantic cost of plant replacement as well as many requirements of educational processes require the American urban university to remain where it is. The solution of the problem, therefore, involves the substantial rebuilding of university neighborhoods."
>
> Dr. Kimpton pointed out that some twenty institutions of higher learning were now involved in slum clearance and urban renewal projects, but that the costs were prohibitive.
>
> "The amount of public funds is inadequate and must be supplemented by private resources," he said. "In the case of the University of Chicago, despite public programs now potentially involving as much as $100,000,000, a solution of the neighborhood problem has so far involved the university in expenditures of more than $6,000,000 and additional requirements for several times that much."

Chancellor Kimpton, on November 5, 1957, in his State of the University message, reported:

> A great university must be a part of a great urban environment, but how does a university remain great as it participates in the deterioration of our American cities? We have destroyed forty-eight acres of slum and blight in our area, we are starting a conservation program to protect nine hundred more acres, we have spent $5,325,000 of University money in acquiring buildings and then demolishing them, and we are preparing to spend many more millions. And still the problem of urban decay is with us and constitutes a threat to our faculty, our students, and, indeed, our future.

Surveys in Other Cities

On June 6, 1958, the recommendations of the Association of American Universities as to a survey of the neighborhood problems of universities was carried forward at a meeting held at George Washington University on that date. Participating were:

F. Morris Cochran, Vice President-Business Manager, Brown University.

Stanley Salmen, Coordinator of University Planning, Columbia University.

Henry W. Herzog, Treasurer, and R. Churchill, City Planner and Consultant, George Washington University.

Edward Reynolds, Administrative Vice President, Harvard University.

Colin Churchill, Assistant to Vice President Medical Institutions, Johns Hopkins University.

Philip Stoddard, Vice Treasurer, Massachusetts Institute of Technology.

Chester Onderdonk, New York University.

Clarence Scheps, Vice President and Comptroller, Tulane University.

John I. Kirkpatrick, Vice Chancellor, and Julian Levi, Executive Director of the South East Chicago Commission, and Jack Meltzer, Director, Planning Unit, University of Chicago.

John L. Moore, Business Vice President, University of Pennsylvania.

Warren T. Lindquist, associate of David Rockefeller.

Ernest V. Hollis, Director, College and University Administration, Department of Health, Education, and Welfare.

Charles L. Oswald, Deputy Commissioner, and Gordon E. Howard, Special Assistant to Commissioner, and S. Leigh Curry, Jr., Chief Counsel, Urban Renewal Administration.

This meeting determined that the Planning Unit of the University of Chicago should undertake a survey and report covering a selected list of universities. In August 1958, a form of questionnaire was approved. Ultimately the following institutions participated in the study:

Harvard University
Massachusetts Institute of Technology
Tulane University
Vanderbilt University
University of California
George Washington University
Washington University
St. Louis University
University of Minnesota
Johns Hopkins University
Northwestern University
University of Indiana
University of Illinois
Columbia University
University of Pennsylvania
University of Chicago

Chancellor Kimpton, in his November 11, 1958, State of the University message, reported:

> Finally, there is the ever present threat to students, faculty, and the very life and future of our University—the neighborhood. As I gather my thoughts on this topic in July when this report was composed, I found them dismal thoughts indeed, and if I now repeated what I then wrote I would not only depress but mislead you. At that time we had gained some new, powerful, and unexpected enemies to our gigantic urban renewal program, and our friends still had to rise and be counted. Mr. Zeckendorf seemed

hopelessly bogged down in difficulties with zoning regulations and the Redevelopment Plan, and our local wasteland stretched out bleak and unrelieved.

In these circumstances, you will forgive me, I hope, if I peek beyond the shroud of gloom that enveloped us at the end of the last academic year and behold the sun that even then was trying to break through. Mr. Zeckendorf * * * somehow cut through his red tape, and houses, apartments, and shopping centers are springing up all over the place. After a series of bitter local and city hearings that seemed to stretch out world without end, the City Council unanimously approved the Urban Renewal Plan that will bring $40,000,000 of public money into our area and an equal amount of private financing. There will be new parks and playgrounds and schools, new dwellings and traffic patterns and shops; and out of slum and blight a new city will arise. There remain problems, of course, but these also will be solved; the tide has turned for us, and out of our success will emerge the pattern of rebuilding Chicago and indeed much of urban America. Surely this is the place and time to pay tribute to the leaders of our community, to the newspapers of our city, and particularly to our Mayor, Richard J. Daley, who have remained, amid all the frenzy of opposition, steadfastly loyal to the ideal we ourselves had of rebuilding a great and stable community that may provide a model for our city and for our nation.

Our community is not only one of homes and streets and shops; far more important, it is a community of scholars dedicated to the life of the mind.

The Campaign for Federal Recognition, Section 112

On January 26, 1959, George Baughman, Vice President and Treasurer of New York University, John L. Moore, Business Vice President of the University of Pennsylvania, and Charles Farnsley, Counsel to the University of Louisville, together with the South East Chicago Commission, appeared before the Committee on Banking and Currency of the U.S. Senate for the 86th Congress. A week later the same group, together with Ralph Pittman, on behalf of Baylor University, appeared before the Committee on Banking and Currency of the House of Representatives. Their testimony dealt with the problems of universities located in or near urban renewal areas. They asked that the Housing Act of 1959 be amended:

> 1. To eliminate the requirement of residential use or re-use as a criterion of eligibility in projects involving institutions of higher education.
>
> 2. That the expenditures made by institutions of higher education for campus expansion, in accordance with urban renewal or development plans approved by the governing body of the municipality, be treated as local grants-in-aid, thus available for Federal matching for the benefit of the municipality.
>
> 3. That, in order that universities turn to the immediate needs of expansion at once, expenditures so made by them within 5 years prior to Federal approval of a loan and grant contract be deemed admissible.

The testimony emphasized the need for a compatible community, the urgent need of expansion of academic and research facilities, and the necessity of leveraging in order that donors and municipalities be encouraged to cooperate with the institutions of higher education.

The legislators were sympathetic. Committee staff and Counsel were most helpful. There emerged what became Section 112 of the Housing Act of 1959—in its final form reading as follows:

> Sec. 112 Urban Renewal Areas Involving Colleges or Universities. In any case where an educational institution is located in or near an urban renewal project area and the governing body of the locality determines that, in addition to the elimination of slums and blight from such area, the undertaking of an urban renewal project in such area will further promote the public welfare and the proper development of the community (1) by making land in such area available for disposition, for uses in accordance with the urban renewal plan, to such educational institution for redevelopment in accordance with the use or uses specified in the urban renewal plan, (2) by providing, through the redevelopment of the area in accordance with the urban renewal plan, a cohesive neighborhood environment compatible with the functions and needs of such educational institution, or (3) by any combination of the foregoing, the Administrator is authorized to extend financial assistance under this title for an urban renewal project in such area without regard to the requirements in section 110 hereof with respect to the predominantly residential character or predominantly residential reuse of urban renewal areas: Provided, That the aggregate expenditures made by such institution (directly or through a private redevelopment corporation) for the acquisition (from others than the local public agency), within, adjacent to, or in the immediate vicinity of the project area, of land, buildings, and structures to be redeveloped or rehabilitated by such institution for educational uses in accordance with the urban renewal plan (or with a development plan proposed by such institution or corporation, found acceptable by the Administrator after considering the standards specified in section 110(b), and approved under State or local law after public hear-

> ing), and for the demolition of such buildings and structures (including expenditures to assist in relocating tenants therefrom), if, pursuant to such urban renewal or development plan, the land is to be cleared and redeveloped, as certified by such institution to the local public agency and approved by the Administrator, shall be a local grant-in-aid in connection with such urban renewal project: Provided further, That no such expenditures shall be deemed ineligible as a local grant-in-aid in connection with any such project if made not more than five years prior to the authorization by the Administrator of a contract for a loan or capital grant for such urban renewal project: And provided further, That the term "educational institution" as used herein shall mean any educational institution of higher learning, including any public educational institution or any private educational institution, no part of the net earnings of which shall inure to the benefit of any private shareholder or individual." (Section 112 added by Section 418 of the Housing Act of 1959, Public Law 86-372, approved September 23, 1959, 73 Stat. 654-677).

Section 112 was debated on the floor of the U.S. Senate on August 18, 1959, at which time Senator Paul Douglas of Illinois and Senator Joseph Clark of Pennsylvania were able to carry the issue by voice vote. The Housing Act of 1959, as finally enacted and approved, included Section 112 in the form above indicated.

On February 16, 1960, the Urban Renewal Commissioner issued Local Public Agency Letter 193, thus giving administrative interpretation and mechanism for the implementation of Section 112.

Summary, First Project

Chancellor Kimpton on November 3, 1959, in what proved to be his final State of the University message, said:

> One of our chief difficulties, of course, is the neighborhood, but I am less worried about it than I was eight years ago. An obvious reason is that much of it is being torn down and rebuilt. But there are other reasons too. The deterioration of our surroundings has brought our faculty community closed together, both literally and figuratively. The vast majority lives within a mile radius of the University, and it is as pleasant and happy a community as you could find in the most bucolic of our sister institutions. More than that, most of the other major universities are in trouble too, and I discover that their troubles are even more acute than our own. Faculty who have actually lived in Hyde Park-Kenwood like it, and I seriously doubt that it now constitutes a major factor in the decision of a faculty member to leave the University. But bringing a new and distinguished faculty member to our campus is a different problem. Here I believe the difficulty is the city of Chicago itself.

Next, the South Campus Project, the Woodlawn District

Chancellor Kimpton and Glen Lloyd, Chairman of the Board of Trustees of the University of Chicago, informally proposed the South Campus Project to Mayor Richard Daley, whereby the university's total campus plan would be achieved and, at the same time, the university could make its Section 112 credits available to the city of Chicago.

On March 29, 1960, Chancellor Kimpton announced his resignation as chancellor of the university. In so doing, he noted:

> In common with other urban universities, the University of Chicago was confronted with the problem of encroaching blight. If the University was to exist, that threat had to be removed. It has been removed, and we now have assurance of a stable community in which the University will have the environment essential to its life and activities. * * *
>
> Why, then, do I want to resign? My conviction is that the head of such a university as this one can do his best work for it within a reasonably short time. The University every so often requires a change in leaders who can apply fresh and sharply objective appraisals, and start anew, free of the associations, friendships, and scars of a common struggle.
>
> I believe that the history of our University bears me out in showing the renewed vitality and intensity which came with each of my predecessors and the new and distinctive contributions they were able to make through the direction they gave the University.
>
> This is the more understandable—and this is not a complaint—when I remind you that the job is an enormously demanding and exhaustive one.
>
> Finally, I can only say that, were I not confident you could find someone who could do the job from here on better than I could do it, I would not resign. The University of Chicago means more to me than I am able to express.

Despite his resignation, Chancellor Kimpton said:

> I am willing to continue as president of the South East Chicago Commission in the work of neighborhood conservation if I am asked to do so, and provided, of course, my future activities make this possible.

On July 18, 1960, Chancellor Kimpton and Chairman Lloyd formally presented the South Campus Proposal to the Chicago Land Clearance Commission. They noted that the University owned approximately 60 percent of the total land area between 60th and 61st Streets, Cottage Grove to Stony Island Avenues; that 26.5 acres were not so owned and were now characterized by widespread decay and deterioration. They noted that the University of Chicago would generate approximately $6,893,000 of Section 112 credits, which would be matched by $21 million of Federal Urban Renewal credits available to the city of Chicago; that of this amount the South Campus Project would cost approximately $6,500,000, thus leaving available to the city $14 million for use in support of urban renewal programs as the Mayor and city council might determine.

On August 2, 1960, the Chicago Land Clearance Commission determined to make the requested survey, which was actually undertaken in January of 1961. The Chicago Plan Commission, on January 26, 1961, agreed to prepare a total Woodlawn plan. This work is now in process.

George Wells Beadle was inaugurated as Chancellor of the University of Chicago on May 4, 1961. He became President of the South East Chicago Commission on June 29, 1961. Chancellor Beadle, in his inaugural address, reaffirmed the commitment of the University of Chicago to its neighborhood:

> One of the questions about the University of X that had to be answered was, 'Where should it be located?' We, its builders, thought of a scenic setting—hills, woods, a lake; perhaps it should be near the mountains. It should, we thought, be near a fair-sized city but not in it. It should be in an area in which it would have social impact on its community. It would be a residential university, with good faculty and student housing, but it would be separated from the "outside world" by thousands of acres of surrounding land.
>
> When my wife and I were first being "looked over" for the University of Chicago, we could not help thinking, "How different from the University of X." Perhaps, we thought, it might be possible to move the university out of its crowded, smoky surroundings to the oak-covered hills to the south and west—near the Argonne Laboratory, example. The cost would be great, but think of the problems that would be left behind.
>
> What a mistake! We are not at all sure now that even the University of X should be isolated in the country. Certainly the University of Chicago would be a far less interesting place and a far less significant institution *if it were* so isolated. The problems it faces in helping to rebuild a section of a great city are not only challenging in themselves but they are also of the greatest national importantce. Until we Americans have learned to rebuild and prevent slums, restore beauty to our cities, and provide education and social opportunities to people who have not had them—largely because of the *color of their skins*—we will not have justified the faith of those who laid the foundations of our nation. We cannot do it by running away or by burying our heads in the sand.
>
> If a great university will not stay and use its knowledge, wisdom, and power to help solve a critical problem, who will do it? There is talk of a Peace Corps and of other grand schemes to help underdeveloped nations in far parts of the world. We should, of course, do everything possible in that direction—but in doing so we should not forget that we must somehow learn to cure the sickness of poverty, unemployment and racial discrimination that blights the hearts of our great cities.
>
> In our own surroundings, a magnificient start has been made through the combined efforts of the university, the local community, the city, the state, and the federal government. We owe a deep debt of gratitude to Lawrence A. Kimpton for taking the lead in this enormously difficult and often discouraging undertaking. We must keep up the effort, for if we succeed we will have established a pattern for the rest of the nation to follow. This is a noble goal for a noble university.

Chapter X

THE WRITERS OF THIS CASE were content to call upon professional personnel for program planning and facilities planning, but their particular province was that of arousing the public to an awareness of need and of providing public avenues of expression to bring the college into being.

Planning and Building South Plains College

By
Orlin Brewer
Editor Levelland Daily Sun News
and
Robert Burks
Dean of Student Life, South Plains College, Levelland, Tex.

SOUTH PLAINS COLLEGE at Levelland, Tex.—perhaps unique in the development of junior colleges in the Lone Star State—sprang from a grain sorghum patch in late December of 1957 to a complete institution in September of 1958.

The college opened its doors to students for the first time on September 15, 1958, with five modern, air-conditioned buildings and a new staff of more than 30 instructors.

Despite its unlikely location in a farming and oil town with a population of only 10,000, 28 miles from Texas Technological College, students numbered 331 in the fall of 1959 and this number increased to 515 in the fall of 1960, with nearly 200 attending evening school either in short courses or regular semester-long, 3-hour credit and noncredit courses.

Between the embryonic idea which had launched it and this highly successful new college were almost 10 years of planning, defeat, renewed hope, and finally victory—a community-wide victory.

The college came into being and proved an astonishing success from the start—although other communities with more apparent need and physical resources failed to achieve a successful college—because of one significant difference: the community's human resources. The community of Levelland had a dedicated group of individuals who saw a need for a junior college, felt it was within the realm of the possible, and set out by the best means at hand to "sell" this consciousness of need to other people in the immediate area.

The Embryonic Idea

O. W. Marcom, superintendent of Levelland's public schools, working at the time on his master's thesis at Texas Technological College in Lubbock, was among the first to suggest a junior college for the Levelland area. His thesis entitled, "A Survey of Secondary Education in Hockley County," in 1949 cited a need for an upward extension of the curriculum beyond high school and presented facts that seemed to justify the establishment of a junior college at Levelland. Marcom gives much of the credit to Dr. Louis B. Cooper of Texas Technological College, faculty adviser on his thesis committee, for inclusion of the junior college idea in his thesis.

Marcom, in his thesis, stated, "Beyond a doubt there would be considerable interest in Levelland if additional technical training were offered in some of the fields already being covered in a 4-year program." He pointed out that it was likely that there would be much interest in courses of a technical nature in the building trades and in machine shop work, and that, even in 1949, there had been numerous requests for night courses in shorthand. An answer to these needs, he felt, could best be found in the building of a junior college rather than extension of the high school program.

The fact that Levelland was located 28 miles from Texas Technological College caused some to doubt that the State board of education would authorize an election for the establishment of a junior college district in the Levelland area. But Marcom felt a consideration of the needs of the pupils of the county as a whole would likely result in an approval because "Tech" was, even then, overcrowded and not at all interested in the terminal courses which would be one of the prime considerations of such a junior college. The new college would also seek to offer the equivalent of the best that a senior college had to offer at the freshman and sophomore levels.

First Efforts Rebuffed by State

Marcom's ideas, backed by Hockley County Superintendent, T. O. Petty, got their first favorable support from the members of the Hockley County School Board.

Members of the county board, along with others in the county, filed an application before the State Board of Education in Austin in May of 1951. E. M. Barnes was president of the county school board at the time the first plea for the right to hold a college district election was made. Barnes, now vice president of the South Plains College Board of Regents, was among seven leaders from Hockley County who appeared before the State board in favor of the college district.

As the Hockley County *Herald* reported the story in 1951, an opposing delegation from the county had presented its side and two members of the procollege delegation were attempting to get recognition on the floor when the chairman asked for a voice vote on the proposal. Following the vote, the chairman announced, "The nays have it," and the 15-minute hearing was completed.

Another member of the group supporting the college, Herman Greener, told the *Herald*, "Our greatest need was for the presence of Levelland business and professional men speaking out in favor of the project." According to Barnes and Greener, the opposition declared that Hockley County and Levelland were on the downgrade, that oil was fast being depleted, and that business was poor. Proponents were not permitted to present their arguments refuting these claims.

After this stinging rebuff it was almost 6 years before the community marshaled its forces to the point that it was ready for another appearance in the State capitol.

The Slow Recovery From Defeat

As far as most of the community was concerned, the junior college movement in Levelland was a dead issue. Over a period of years it was only occasionally discussed when members of the first delegation desired to reminisce, or when a specific need which only a junior college could fill was recognized.

However, a statement by the Texas Commissioner of Education, Dr. J. W. Edgar, at a Texas State Teachers Association meeting in Midland, Tex., in early 1956 started a chain of events which was eventually to lead to renewal of the effort. Dr. Edgar told his audience in Midland that the "trend in the future will be toward more junior and community colleges since it appears that major colleges may be forced in the future to limit their enrollments." Dr. Edgar's statement was the first hint of a gradual change in the views of the State Board of Education on the establishment of a new junior college.

Superintendent Marcom mentioned this statement by Dr. Edgar to Orlin Brewer, managing editor of the Levelland *Daily Sun News*, and on March 29, 1956, Brewer telephoned Dr. Edgar for further comment. Dr. Edgar said he did not remember the exact context of his statement, but pointed out that a special committee report setting up new criteria for establishment of junior colleges was being prepared and would be forthcoming within a few months. He commented, however, that the interest in new junior colleges in Texas appeared slight. The State board had not received an application for a junior college since the 1951 request from the Levelland delegation.

From that time on, Brewer and his newspaper became public advocates of a junior college to serve the area and to make certain no deserving students were denied the chance to attend college. The conversation with Edgar resulted in a banner headline on page one of the community newspaper, and periodic articles and editorials on the need for a college appeared over the next several months. As a result of his journalistic efforts, the editor was invited to a meeting of the Levelland Chamber of Commerce Board of Directors in May of 1956 to present his ideas on how a campaign for a junior college could be launched.

As a direct result of the meeting, a two-man committee, consisting of editor Orlin Brewer and Chamber Manager Bob Walker, was named to conduct a survey of the State's existing junior colleges to determine how they were formed, the number of junior college students, financial backing, and other vital factors. Almost all the junior college presidents responded to this survey, but several offered the advice that the committee could save months of hard labor by contracting the State's foremost authority on junior college formation, Dr. C. C. Colvert of the University of Texas.

The basic committee of two was expanded by the committee itself as it invited interested citizens to join in the program to seek a college for the community. Without funds of its own, the committee called on the Hockley County Development Foundation for funds, and it was this foundation which hired Dr. Colvert to come to Levelland to conduct a survey to determine whether a college in Levelland would be feasible. On December 19, 1956, Dr. Colvert, with members of the citizens committee at his disposal, launched an intensive 3-day study of the feasibility of a junior college in Levelland.

As the survey neared completion, members of the committee started telephoning community leaders and school men in the surrounding counties of Bailey, Yoakum, Terry, Cochran, and Lamb, inviting them to a dinner meeting in Levelland to hear the Colvert Survey report. A total of 120 leaders from over the six-county area turned out to hear the survey results which Colvert labeled as a "preliminary" report.

The Colvert Survey

Dr. Colvert presented three separate possibilities for formation of a "South Plains" junior college and gave the estimated costs of each. He estimated, by use of known indices and on the basis of population, school enrollment, number of graduates, and other factors, that a junior college serving Hockley County alone would have, conservatively, an enrollment of 356 students within 5 to 8 years.

Using the same indices, and including both Hockley County and neighboring Cochran County, located to the west (but with a population of about 6,000 as compared with more than 20,000 for Hockley County), Dr. Colvert estimated that this eventual enrollment would be 449 students. By using a six-county district, all within a radius of 50 miles, he estimated the enrollment would reach about 576 students. He said that the program should definitely include free bus transportation for students within the district and a tuition of $25 per semester per student, a State minimum. For those outside the district, he suggested a higher tuition, plus a monthly fee for riding one of the college buses.

Dr. Colvert also introduced a survey of 288 seniors in Hockley and Cochran County schools. A total of 220 responses were received from Hockley County. Eighty-three seniors said they would attend a junior college in Levelland under the terms suggested; 67 gave a negative response; and 70 were undecided. The survey showed a larger percentage of Cochran seniors willing to attend than Hockley seniors. In Cochran, 25 students said they would attend, while 12 said they would not and 23 were undecided.

Dr. Colvert reasoned, on the basis of past experience, that half of those who were undecided would attend such a college, primarily for financial reasons. He said this would make a potential enrollment of 154 students the first year, provided the college met necessary standards. He entitled his report, "A Proposal for a South Plains Junior College" to be located in Levelland, Tex., and on December 27, 1956, mailed his survey conclusion to Dr. C. M. Phillips, chairman of the Hockley County Development Foundation, pushing to help the county meet a deadline for presentation of its proposals to the State Board of Education on January 2, 1957, at which time the anticipated criteria report was to be adopted by the State board.

In his general introduction, Dr. Colvert said,

> The data presented in this proposal for a South Plains Junior College more than meet the criteria set up in the statutes for a public junior college in Texas. It is believed further that they will also more than meet the new criteria which is proposed by the Junior College Study Commission sponsored by the State Board of Education.
>
> This proposed South Plains Junior College is to serve an area composed of six counties as follows: Cochran, Hockley, Bailey, Lamb, Terry, and Yoakum. Even though not all the counties are in the presently proposed junior college district, buses will be run to all the counties where the number of students justifies such. It is believed that the data reveal that such a plan will bring in a student body which will reach, within 5 to 8 years, 450 to 600 full-time student equivalents.

In his written survey, Dr. Colvert gave a detailed report on figures presented in the general meeting. Among these were figures showing: (1) that the enrollment in grades 1 through 12 in Hockley County Schools had increased 32 percent since 1947, from 3,716 to 4,905 students; (2) that Cochran County had increased during the same period from 1,352 students to 1,528 in the same grades or a total of 13 percent; and (3) that combined, the two counties had increased from 5,068 to 6,533, or 28.9 percent in student enrollment.

Dr. Colvert said that a college district could be formed (1) from Hockley County only; (2) from Hockley County and Whiteface School District in Cochran County; (3) from Hockley and Cochran Counties combined; (4) from these two counties and one or more adjoining independent school districts in other counties; or (5) from these two counties and one or more of all four of the counties of Terry, Yoakum, Bailey, and Lamb.

He concluded his report with the following statement:

> In view of the fact that the data show that the junior college would have over 150 students the first year of its operation, over 250 students its second year and 450 to 600 students within 5 to 8 years, it is felt that the college is justified on a basis of adequate enrollment.
>
> Also since Hockley County with over $45 million assessed valuation [has enough valuation] to adequately support the projected enrollment of 450 students with a maximum tax rate of 44 cents and with Cochran County and possibly other counties coming into the district, there seems to be adequate evidence that the college can be well supported financially.
>
> The area is also in an expanding economy and growing population.
>
> All these facts seem to more than adequately justify the establishment of a junior college in Levelland for this area.

A New Petition to the State Board

The college citizens committee considered first a petition to the State Board of Education for a two-county district, including Hockley and Cochran Counties. But an uncertainty about the desire of the people of Cochran County to be a part of such a district brought a crucial decision to seek State board approval for a district consisting of Hockley County only. Committee members reasoned, in view of past difficulties in securing approval for an election, that they would be placed in an embarrassing position if the State board approved a two-county district and an election could not be carried because of possible disinterest in Cochran County. They felt they might then be forced to return to the board a second time to request a single county district, which the State group would be more likely to reject if there had been an election defeat on the first proposal.

Since Colvert felt that Hockley County alone would meet the criteria being prepared by the State board, the committee favored a request for a one-county college district. If this were rejected, they felt they could then come back with the two-county proposal. Petitions were circulated. Signatures from 5 percent of the qualified voters were obtained, for presentation before the State board on January 2, 1957, asking simply for the right to conduct an election and "let the people themselves decide" the college issue.

State Board Hearings

After the presentation of these petitions, a special nine-man committee, including three junior college presidents, three State business leaders, and three State Board members, was sent by the State Board of Education to Levelland for a 2-day hearing on January 20 and 21, 1957.

Dr. J. R. McLemore, president of Paris (Tex.) Junior College, later revealed publicly the position taken by the three junior college presidents who helped conduct the State board's survey committee hearings on the college. He said that after the three junior college presidents on the committee saw the local enthusiasm and "evidence of unanimity" in support of the college, they agreed early in the day that there would be at least a minority report from the three of them favoring establishment of a college in Levelland. Dr. McLemore further stated that while other communities have dreaded their public hearings, "your hearing won everything for you."

The community had presented its top leaders before the committee, all favoring establishment of the college. Every word of testimony was taped for broadcast over a local radio station, transcribed for use in the local newspaper, and virtually every witness was photographed. Whether these tactics affected the outcome is not known, but the opposition which had killed the proposal before the State board in 1951 had dwindled to only token dissent from out-of-area and out-of-State interests.

The State board on February 2d voted unanimous approval for the election, and in 2 months the citizens committee headed home from its second Austin hearing to start the machinery rolling. It carefully selected regent candidates from all communities in the county and circulated petitions calling for an election to form the college district.

The Referendum

In the election, conducted on April 3, 1957, county residents voted 1,577 to 644 in favor of formation of a district, electing the suggested regents to office.

The Board of Regents and the Bond Election

At this point, the problem of planning and opening the college passed from the hands of the citizens committee to the college board. The regents called an election for July 13, 1957, proposing $900,000 in bonds to finance a new college plant and levying a 19-cent per hundred dollar valuation bond tax and a 25-cent maintenance tax. Although no breakdown had been determined on how the bond money was to be spent or what it would buy in terms of buildings, community support for the college was so strong at this point that the election again carried overwhelmingly.

Setting Up the Administration

The regents also named Dr. Thomas M. Spencer of Brenham, president of the Texas Association of Junior Colleges, as president of their new institution. As one of the most dynamic figures in junior college education in Texas, he was given credit for implementing the program which the college citizens committee, the regents, and people of the community envisioned.

In early 1958, the college district was expanded to take in the Whiteface School District, the largest independent school district in adjacent Cochran County. Thus, with a tax valuation of more than $90 million, the economic future of the college was secure, though the regents still remained willing to enlarge the district to serve other areas in the region better.

Projecting the Enrollment

When South Plains College was first organized, there was no way of knowing the exact number of students who would enroll the first year, nor was there any predictable growth rate for the college. Therefore, the board and administration of South Plains College felt that a minimum plant requirement should be sufficient for 500 full-time students. Likewise, there was no way of predicting the ratio of students in the various departments, agriculture, business, etc., but it was felt that adequate classroom space should be provided for all of the major departments which were functioning in comparable West Texas colleges.

Selection of a Site

Latitude of choice among several sites around the city proper was available to the college. Generous offers were made by local citizens to donate land to the college, generally in the amount of 20- to 25-acre tracts. While the board appreciated these offers it was felt that a much larger land area would be needed in order to prevent the college from being "boxed in." The general pattern of development of towns in the southwestern part of the United States is from northeast to southwest and it is also generally true that whenever a college is built on the edge of towns housing developments tend to spring up around the college as quickly as the land can be secured. Because of the above reasons, the board wished to secure at least one labor [1] of land.

At the southeast edge of Levelland was a tract of farmland owned by the Post-Montgomery Estate, commonly referred to in this area as "Double U" land, derived from the cattle brand of the original ranch.

Growth of housing developments in the community had been brought to a halt by the reluctance of the executor of the estate to part with holdings immediately surrounding the city. The local manager for the Post-Montgomery Estates was approached by the Board of Regents of the college and was asked to make inquiries as to the availability of this tract of land. The request was forwarded to the State governing board of the Post-Montgomery Estate in the fall of 1957. The governing body of the estate appointed a real estate agent to make a survey of the property and determine its proper price. The price was agreed upon by the board and the initial acreage was purchased with an option to buy 27½ additional acres each year for 5 years. The choice of the site was made for these reasons:

1. It was immediately adjacent to the city of Levelland proper. Levelland has grown steadily but not at a spectacular rate for the past 10 years. It was felt that locating a college here would materially stimulate the growth of the community.
2. There were no zoning restrictions involved since the property lay outside the city limits. Since the college was built, however, the area has been taken into the city limits. The land is flat and slopes gradually to the southeast, with only two small drainage problems. Located in the northeast corner of the land is a dry lake bed which alternately is filled with water and is dry, depending on the weather conditions.

It would be well to explain that there is not one river, stream, or creek in Hockley County and there are no bridges or large culverts. The land is so flat that the only rainwater drainage possible is through such dry lake beds or sumps. It was noted that the lake bed was large enough to hold the flow of water up to and including a 5-inch rain. During the summer of 1960 an 8½-inch rain occurred in less than a week in Levelland and water was within 8 to 10 feet of the new boys' dormitories. However, it has been estimated by agricultural engineers that it would take 10 or 12 inches of rain to fill the lake far enough to do any damage to the buildings on campus.

One basic question was whether to build the college with unit-type construction or on the campus plan. The campus plan was decided upon because it would provide separation of the various departments as well as allow for more flexible expansion later. Also, the esthetic attractiveness of the campus plan was considered in making this choice. The terrain on which the college was to be built is rather flat and barren, and the campus plan would allow for ample landscaping. The site is located along U.S. Highway 385, on one labor of land, using approximately 40 acres of that labor for the original quadrangle site. Paved access streets lead from U.S. Highway 385, and country roads lead into the campus at the north and south ends of the quadrangle. A paved street of normal city width runs completely around the quadrangle.

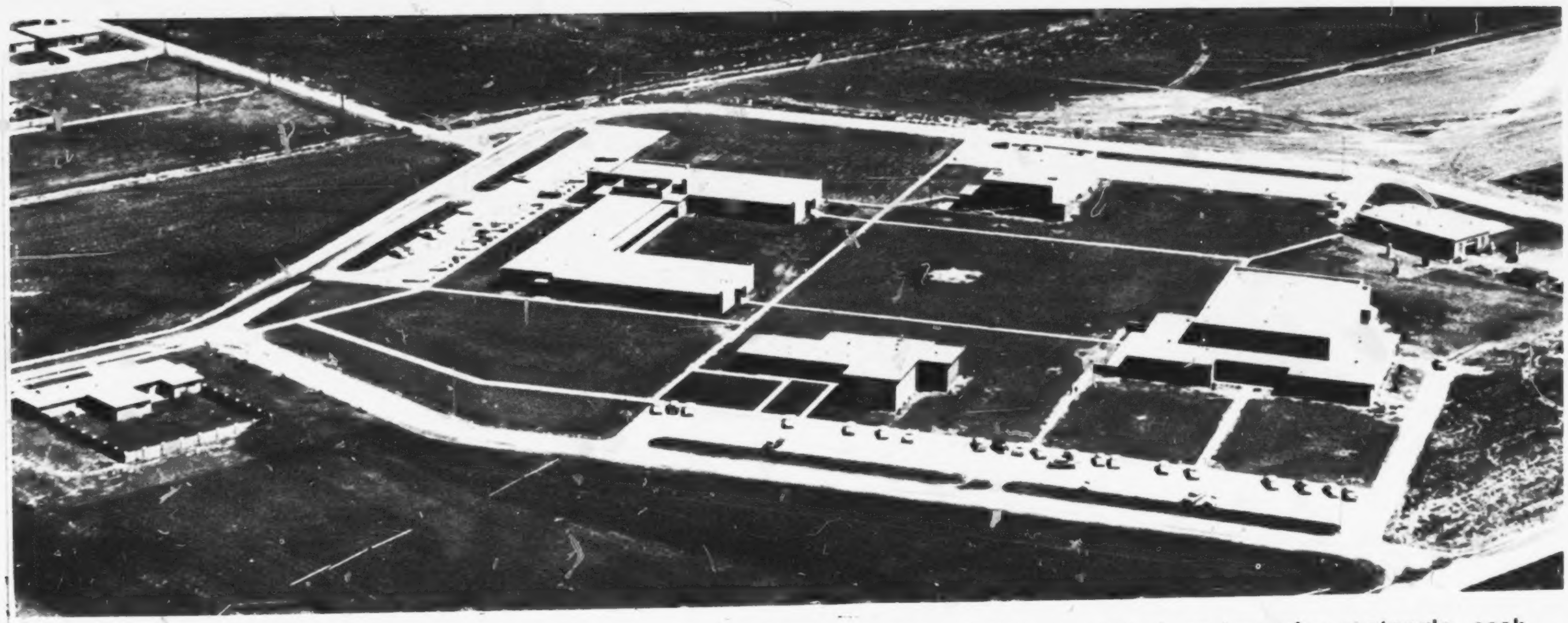
In the West Texas area, because of the distances involved, a high percentage of the students have automobile transportation in one form or another and there were no on-campus living quarters for the first 2 years

Selection of an Architect

The firm of Haynes and Kirby was selected as the architect for South Plains College. There were several reasons for this choice: (1) It was the senior architectural firm in Lubbock, Tex., which is located 28 miles due east of Levelland: (2) both members of the firm are Texas Technological College graduates and West Texas men who were therefore familiar with the philosophy and ideas of the West Texas area as well as with the practical consideration concerning climate and weather, and (3) this firm has probably built more school buildings in the West Texas area than any other architectural partnership. Haynes and Kirby designed the West Elementary School in Levelland as well as buildings for Texas Technological College. In summary, it can be said that

---

[1] In Texas, a "labor" of land is 177.14 acres.



South Plains College, Levelland, Tex., ranged its five major buildings around an irregular rectangle, each facing a street. Pedestrians walk from building to building without crossing vehicular traffic.

Haynes and Kirby were selected as architects because of their practical experience in building schools in West Texas as well as for their extensive knowledge of the geography and climate of the area.

To approach the problem of specific requirements for definite educational facilities, it will be necessary to examine the campus as a whole and then by its separate components.

Planning the Campus

The campus, as previously mentioned, was built according to the campus plan with five major buildings: the administration building, library, student center, agriculture-industrial building, and auditorium. The buildings were placed in the above order clockwise around an irregular rectangle (see above) with each building facing its respective street. Adequate paved parking areas were located in front of each of the buildings. The rear or side of each building faced the inner quadrangle. This allowed pedestrian travel from one building to another without crossing a line of vehicular traffic.

The administration building was built in a U-shape and contains most of the classrooms. The east or righthand wing contains the classrooms for business administration consisting of a typing room, accounting and business machines laboratory, lecture room, and an undesignated classroom. When, after construction had begun, it was decided that a class in vocational nursing should be included in the college supplemental program, the undesignated classroom was modified to form a vocational nursing classroom complete with cabinets, sinks, stove, hospital bed, etc. The general administrative offices are located in the northeast corner of the administration building. Being built in a unique fashion, the president's office, tax assessor-collector's office, registrar's office, and the office of the director of evening school, as well as the publication and mimeograph room, are ranged around a large central reception and workroom in which are located the secretaries for the various administrative offices. The dean's office is located approximately three-fourths of the way down the main wing near the majority of the classrooms; the reason for this is that the dean, being primarily concerned with student activities, is thereby more readily available to the students. Across the remainder of the administration building front are located classrooms. The west or lefthand wing was built as a science wing and contains well-equipped laboratories for biology, chemistry, physics, as well as a lecture room complete with demonstration equipment, and a suitable darkroom.

It was felt by the administration and board that this one-story U-type construction was favorable for expansion. All that is necessary to expand the administration building is the addition of classrooms at either end of the main wing or the enclosure of the open part of the U. Restrooms are located at the extreme end of both wings so that further expansion would not require additional plumbing costs. The administration building is completely air-conditioned summer and winter with the use of refrigerated air-conditioning and boiler heating. Each room has access to two radiators located in the ceiling of the main halls, with hot or cold air ducted into each room by individual blowers, these being controlled by individual thermostats in each room. There are 10 teacher offices located in the administration building, these being scattered appropriately through all three wings in order that instructors may be near the classrooms in which they teach. Use was made of large areas of glass in the administration building in order to have as much natural light as possible in the offices, classrooms, and corridors. This can and does add up to a substantial saving in utilities costs during the year.

Located to the southwest of the quadrangle and facing away from the administration building is the library and Fine Arts Building which consists of three main units: the book stacks, library reading room, and fine arts section. The main reading room is of two-story height, but is in reality one large room with a mezzanine. The west wall of the reading room contains a two-story window. This large window was built to take advantage of natural light and to give the room an open, spacious effect. The administration and board of South Plains College believe that everything should be done to make the library reading room as cheerful, bright, and homelike as possible in an effort to overcome the somewhat natural reluctance of students to spend daylight hours in a dark, cramped library. The stacks are located immediately to the south of the main reading room and are of two-story construction. The mezzanine of the main library reading room was included in order to provide extra reading space for periodicals and to provide access to the second-story stacks, teacher office, and an equipment room.

The library building may be expanded by merely adding to the reading room in one of two directions. The reading room could be continued from its present position to the south, thereby forming an L-shaped room, or an addition could be built directly in back of the present reading room.

Directly under the mezzanine of the library reading room is located the librarian's office, audiovisual storage room, librarian's workroom, a glass-enclosed conference room, and the charge desk. These offices were located in this order to make maximum utilization of the space directly below the mezzanine and to be readily accessible should an addition to the reading room be built as mentioned above.

The fine arts section, which is an integral part of the library building, consists of a small auditorium seating 70, a music studio, instructors' offices, and practice rooms. The small auditorium was built for several reasons: (1) It will provide a classroom for speech and drama; (2) it is suitable for use by the college chorus; and (3) recitals, capping ceremonies for nurses, and other like functions may be held there. This effects a saving in the use of the large auditorium which requires considerably more effort to clean, maintain, and heat. Also, audience psychology was taken into consideration: that is, audiences are better satisfied and respond better to performances when a small auditorium is full than when a large auditorium is almost empty.

Located next to the small auditorium is the music studio in which piano, voice, and music classes are taught. Separated by a small traverse corridor on the extreme north end of the building are four soundproof practice rooms. The corridor arrangement in the library is unusual in that in warmer climates and climates with less varied weather the corridor by which the students reach the various areas of the library would be open. Because of the adverse weather and the sudden climatic changes felt in this area of West Texas, the corridor was enclosed with a wall of glass. The library building is air-conditioned for summer and winter comfort.

Located immediately to the south and east of the library building is the student center, which is a tri-purpose building. The student center contains a student recreation room, gymnasium, and band hall, thereby locating the three most noise-producing activities in one building.

The gymnasium occupies the center part of the building and is adequate for physical education classes as well as for intramural and intercollegiate athletics. Bleachers which are located on the south wall of the gymnasium are of the roll-away type and provide seating for approximately 500 people. This leaves the other three walls available for various other activities. Eventually, as the college grows and as more seating space is needed, bleachers will be added to the north wall and risers to the end walls.

Located immediately behind the gymnasium proper are the dressing facilities for girls' physical education, boys' physical education, instructors' offices, and a team room for intercollegiate athletics. In the south wing of the student center are the facilities used for the band, separated by a double set of doors from the rest of the building. The band wing contains a large band hall (with ample blackboard space in order that it may be used as a classroom during the hours that band does not meet) as well as an instrument room, uniform room, and four soundproof practice rooms. The student recreation room is located in the opposite wing and has the only departure from our normal construction in that the tiles which were used in the construction of the building have been cleaned and patterned, thus forming the inside wall with excellent acoustical properties. Seventy-five percent of the entire north wall of the student recreation center is glass which looks out onto a concrete patio. Terrazzo tile rather than vinyl tile was used in the floor in the student recreation center because of the heavy pedestrian traffic. A small snackbar and the college bookstore were located inside the student recreation center during the first 2 years of its operation.

During the past year, a large kitchen was built onto the student recreation wing, because with the coming of dormitories also came the problem of feeding facilities for students. A basic decision had to be made as to whether to have food facilities within the dormitories or in a central location. It was not possible at this time to finance a dining hall in addition to the new kitchen facilities so a unique system of serving the students was set up. Three times a day—breakfast, luncheon, and dinner—the student recreation room becomes the dining room. All of the serving essentials, such as steam tables, milk bar, and pastry racks, are mounted on casters, and the serving facilities are rolled into the student recreation room and set up. The entire process of setting up and preparing to serve takes less than 15 minutes. When the food service is completed, these counters and steam tables are rolled back into the kitchen, thereby leaving the student recreation center available for its normal activities.

The kitchen was so designed that in the future a dining room could be added to the north side, extending into the college quadrangle. This will permit the return of the student recreation room to its normal usage for all periods during the day and evening. Both the student recreation room and the band facilities have complete year-round air-conditioning.

Located directly to the east of the student center is the agriculture and industrial building which contains an agriculture laboratory, classroom, two teacher offices, a tool room, shower room, and shop area. Extensive use of glass in the shop area has been made in order to secure as much natural light as possible. Both ends of the shop area have large overhead doors in order that vehicles and material may be moved in and out with ease. The shower room includes restroom facilities, locker, and showers. The shop, because of its construction and because of the two large overhead doors, was not air-conditioned. Heat loss and cooling loss is large if one or both of the overhead doors are opened.

The shop space at the present time needs to be enlarged. There was again no way of foretelling what courses would develop and how much equipment would be needed. The industrial education section of the evening school was larger than expected and as a result shop facilities have been crowded. Equipment for the following courses are contained within the single area: welding, machine shop, sheet metal shop, woodworking, instrumentation laboratory, and refrigeration laboratory. With the exception of the machine shop each of these areas has slightly less space than is actually needed.

Located immediately north of the agriculture building is the college auditorium. It seats 500 at present, and seating can be enlarged to approximately 600. The stage is of adequate size for college productions, concerts, lyceum series, and other such programs. The lighting system is adequate for such productions as a small college might present. On each side of the stage, located in the rear wings, are restroom and dressing room facilities for both men and women. Located immediately above the foyer of the auditorium are the heat and air-conditioning system and a projection room.

This completes the clockwise circle of buildings around the inner quadrangle of the campus. All buildings are of brick construction with load-bearing walls. The roof is of metal decking covered with insulation, paper, tar, and gravel. All buildings are acoustically treated by the use of acoustical plaster on the ceilings or acoustical tile set in aluminum channels which are suspended from the roof.

Dormitories

In the fall of 1960 the first dormitories were completed. The dormitories are located across the street facing the buildings on the quadrangle, the two boys' dormitories being located on the opposite side of the quadrangle from the girls' dormitory, which is south of the student center. Two men's dormitories and one women's dormitory were constructed using the same architectural pattern as in the other buildings. A fourth dormitory was added in 1961. The walls are brick with the same type of metal decking and insulation for the roof. Each dormitory houses 52 students and has year-round air-conditioning. The dormitories are constructed in the shape of an L with the largest wing parallel to the street and the smaller wing at a right angle to it. In each dormitory is located a lounge for use by visitors and guests. There are matrons' quarters and storage facilities. The boys' dormitories have a lavatory in each room and a large shower room in each wing. The girls' dormitory has a bath with a shower located between each two rooms. This dormitory also contains a large laundry room with automatic washing machines and dryers as well as ironing boards which fold down from the wall. Both the girls' and boys' dormitories have acoustical plaster or tile throughout the buildings.

Also located on campus next to the two access roads are the president's home and the dean's home, which architecturally carry out the same motif as the other campus buildings. Up to this time, approximately 45 to 50 acres have been planted in grass and landscaped.

Conclusion

What began with an idea in the mind of an alert school superintendent in 1949 has taken shape in the form of a new institution of higher education, making its contribution to the welfare of West Texas. Obstacles have been surmounted, leadership has found expression, public opinion has been focused, plans have been formulated, and a meaningful result has been achieved. This has been a demonstration that, given full information and purposeful guidance, a community can work harmoniously and effectively to meet a common need. A modern campus with 10 buildings and plently of space to grow now occupies the site where once the buffalo roamed.

Chapter XI

CONSOLIDATION of two or more existing colleges not only has all of the planning problems of the founding of an entirely new institution but also the sometimes painful task of rallying the reluctant support of the constituencies of the several colleges being abandoned. The best approach to such a task may well be to plan the new college so soundly and to present those plans so attractively that the several loyalties commanded by the older institutions are seen as all being fulfilled in the new one.

Planning and Building St. Andrews Presbyterian College

By

PRICE H. GWYNN, JR.

Dean of the Faculty, St. Andrews Presbyterian College, Laurinburg, N.C.

The Beginnings

THE PRESBYTERIAN CHURCH in North Carolina has had a long history of interest in higher education, dating back to 1837. The story of the founding of the new St. Andrews College is the story of the Synod of North Carolina's concern with its role in the development of church-supported colleges. Over the years, seven colleges were in operation in North Carolina to which the Presbyterian Church had given its support. Yet, in the 1950's matters came to a head, reflecting the concern of intelligent minds in the church for the effort in higher education both in terms of the multiplicity of small colleges and the kind of assistance given by the Synod to support the colleges.

In 1953, the Synod was given a grant by the Fund for the Advancement of Education to search for a pattern of Christian higher education in its schools that would hold the greatest promise for the future. A survey commission selected from the Synod was established, and a survey advisory council was engaged, consisting of five distinguished educators with Dr. Roger P. McCutcheon as director of the survey.

For 18 months the groups worked in close cooperation with the presidents of the institutions that were being studied. In 1955, the report of the commission[1] was presented to the meeting of the Synod and was overwhelmingly adopted. Its major recommendation of the report was fulfilled in September 1961 with the opening of St. Andrews Presbyterian College on a new campus in Laurinburg. This represented the consolidation by the Synod of two junior colleges with Flora Macdonald College—a 4-year liberal arts institution. Meanwhile several law suits were instituted to block the merger and there were angry words and sore hearts among many otherwise gentle people who saw loss in the change. In looking back, great things were accomplished in a remarkably short time. During the process, it seemed that progress was painfully slow.

---

[1] Committee on Educational Institutions. "The Church and Higher Education," A Report to the Synod of North Carolina. July 1955. Office of the Synod of North Carolina, Raleigh, N.C. 72 p.

Consolidation

The decision to merge the three institutions was made on a number of grounds. The necessity for prudent use of the limited financial resources of the Synod was, of course, important. It was clearly demonstrated that it was impossible to finance the upgrading in facilities, endowment, and operational costs of all the institutions. The small size of the institutions—carried per capita cost beyond economical operation. Although all three colleges were fully accredited, maintaining educational standards was a constant struggle. Throughout the report, reference was frequently made to the service by faculty members and of the problems of college administrators faced with the task of making "bricks without straw."

A brief word about the aims of the consolidated college is in order. First and foremost, its life was to be guided by a philosophy of Christian belief. Clearly it was to be an institution that sought excellence through the traditions of a sound liberal arts education. It was recommended that the consolidated school be a 4-year coeducational liberal arts college. The junior college was viewed as an institution better suited to be a portion of the publicly supported system of higher education. The aims of developing Christian leadership were not considered as readily served by the junior college with its more transient population as by the 4-year institution. This point of view developed from the experience of the Synod with both kinds of colleges.

The coeducational college marked a change for the three institutions to be consolidated. The nationwide problem encountered by women's colleges in raising funds and keeping students in the upper 2 years offered practical reasons for choosing coeducational instruction, aside from the other views on the desirability of so doing.

The report urged that the new institution be of adequate size to warrant complete staffing and to help reduce its costs. Five hundred was set for minimum size with the expectation that the college would grow eventually to 2,000 students.

Location

It was recommended that the college be located in central or eastern North Carolina in a "population center where, in addition to the interest and support of the constituency, cultural opportunities and advantages are afforded the student."[2] The location in a population center would also allow the development of a source of enrollment of day students.

Immediately after this announcement was made, something new in Presbyterian circles took place. Sixteen communities in the State of North Carolina began vying with one another to have this college located in their towns. Committees were formed, funds raised, prospective sites suggested. The Synod appointed a strong committee consisting principally of laymen, but with good capable ministerial support, to select the most suitable site.

After visiting most of the towns and cities involved, and after studying the total educational picture in eastern North Carolina, the committee selected Laurinburg, a small town of 8,200 people within the city limits and about 12,000 with the suburbs included. Two of the consolidating institutions were located nearby, and the third was in Raleigh, 80 miles way. Laurinburg almost literally straddles the border between North and South Carolina and lies at the western edge of what is called "the coastal plains" region of North Carolina. This section is strongly Scottish in character. The "Macs" are prominent in both business and civic life. Laurinburg is situated in Scotland County and the whole section once was called "New Scotland." Charlotte, the largest city in the State, is 100 miles to the west, and Wilmington and the popular Carolina beaches lie 100 miles to the east. Raleigh, Durham, Winston-Salem, High Point, and Salisbury all lie 100 miles away in a northerly direction.

The reasons which lie back of the committee's selection of Laurinburg are interesting, as they reveal something of the Scottish character. Laurinburg as a community is strongly independent. Because of this spirit of independence, in 1956 Laurinburg was cited by a panel appointed by a national magazine as an "All-American City." When it wanted a public swimming pool and needed a new hospital, the town council floated bonds and paid for these enterprises. When they decided they wanted this college located in their town, five of its citizens went into a bank directors' room and raised a million dollars on the spot as an initial gift to the college. The citizens of Laurinburg raised a total of $3,400,000 for the college.

---

[2] Ibid., p. 32.

In addition to considerations already given, the committee chose Laurinburg because its citizens had shown a sustained interest in higher education over the years by serving faithfully and ably on various boards of the church colleges in the area and by sacrificial support of different colleges within the bounds of the Southern Presbyterian Church.

A campaign for funds in the Synod was conducted by the board of trustees in 1956 and an additional $1,500,000 raised. A site for the merged institution was chosen a mile south of town. Twenty-six farms and parcels of land were bought, giving the new campus 840 acres, considerably more than a square mile.

Curriculum Study

A second major study predated the planning of physical facilities for the new institution. In 1957 a panel of educators was appointed to draw up suggestions for a curriculum for the new college with the aid of a grant from the Fund for the Advancement of Education. The panel, chaired by William Taeusch, Dean of the College of Wooster, Wooster, Ohio, was made up of Ruth Eckert, Professor of Higher Education, College of Education, University of Minnesota; Sidney J. French, Dean of Rollins College; Price H. Gwynn, Jr., Dean of Flora Macdonald College and first Dean of the Faculty of St. Andrews; Jameson M. Jones, Dean of Southwestern University at Memphis; and Rene de Visme Williamson, Professor of Political Science, Louisiana State University. A large group of educators participated from time to time in the study with the panel, made distinguished contributions to the overall project, and prepared a report.

The panel stated that in developing a proposed plan of curriculum, these principles were basic:

> (1) Christianity should be the living center of the whole college community and should radiate throughout all its activities.
>
> (2) The college should continue the strong traditions and achievements of its merging colleges and should continue to heed the academic needs of its time and place.
>
> (3) Sound scholarship should characterize the work of this college. Our principle here is this simple directive: The college cannot do everything; it should do well what it undertakes, and it should courageously decline what it cannot do well.
>
> (4) It should be planned and maintained with thrift, avoiding cheeseparing at one extreme and, at the other, luxurious expenditure of time, energy, and money. It can secure durable quality by using its resources on those expenditures which will best promote its primary purposes.[3]

The general structure of the 4-year liberal arts program for typical students as envisaged by the panel, incorporated into the buildings, and now being put into action by the faculty, is shown in the accompanying diagram.

Typical 4-Year Program

The curriculum suggestions were open-ended and drew from, among other sources, papers presented from faculties of some of the institutions to be consolidated.

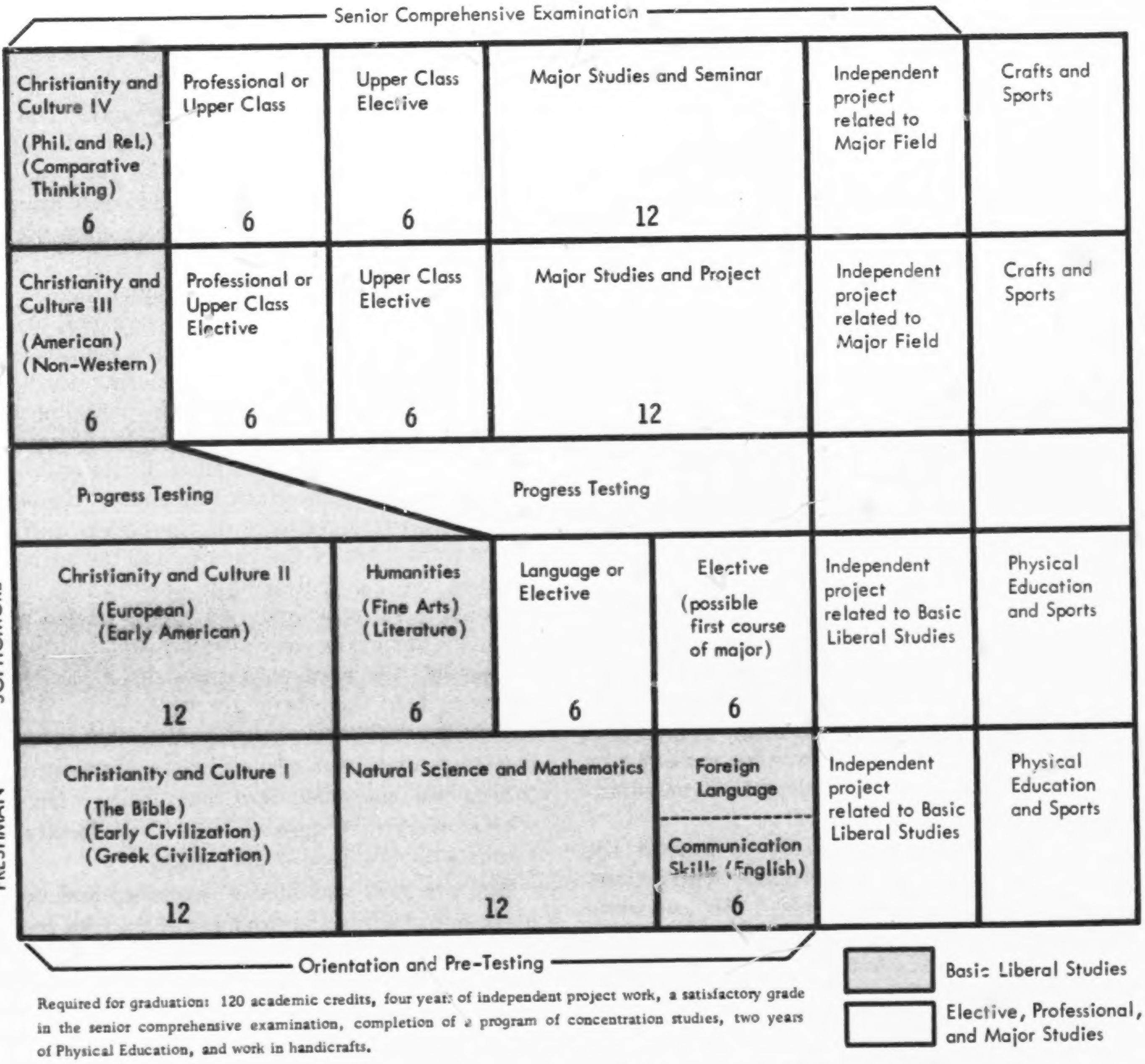
The panel favored a plan which would include a large block of general education courses to be taken by all students as a part of the Christian cultural heritage and experience. This would cover about half the student's total time and bear the title of basic liberal studies. These are to include, in addition to work in Christianity and Culture continuing through all 4 years, general courses in natural science, mathematics, and the humanities.

In a sense, the basic liberal studies constitute a triangle, broad at the base (freshman year) and tapering toward the senior year. Complementing this is an inverted triangle of work, broadening in the upper years and gravitating toward the student's chosen field of concentration—electives, professional, and cognate courses. Thus, half of his work will be taken in common with his fellow students in the basic liberal studies and half in the area of his own special interests. The team teaching method is used in presenting the core program entitled Christianity and Culture. All other courses are handled in the conventional fashion with one teacher for each class.

---

[3] The Panel. *Curriculum suggested by Panel of Educators for Consolidated Presbyterian College,* St. Andrews Presbyterian College, Laurinburg, N.C. 1957. p. 19, 20.

TYPICAL FOUR-YEAR PROGRAM



Senior Comprehensive Examination

SENIOR	Christianity and Culture IV (Phil. and Rel.) (Comparative Thinking) 6	Professional or Upper Class 6	Upper Class Elective 6	Major Studies and Seminar 12	Independent project related to Major Field	Crafts and Sports
JUNIOR	Christianity and Culture III (American) (Non-Western) 6	Professional or Upper Class Elective 6	Upper Class Elective 6	Major Studies and Project 12	Independent project related to Major Field	Crafts and Sports
	Progress Testing		Progress Testing			
SOPHOMORE	Christianity and Culture II (European) (Early American) 12	Humanities (Fine Arts) (Literature) 6	Language or Elective 6	Elective (possible first course of major) 6	Independent project related to Basic Liberal Studies	Physical Education and Sports
FRESHMAN	Christianity and Culture I (The Bible) (Early Civilization) (Greek Civilization) 12	Natural Science and Mathematics 12		Foreign Language Communication Skills (English) 6	Independent project related to Basic Liberal Studies	Physical Education and Sports

Orientation and Pre-Testing

▨ Basic Liberal Studies

☐ Elective, Professional, and Major Studies

Required for graduation: 120 academic credits, four years of independent project work, a satisfactory grade in the senior comprehensive examination, completion of a program of concentration studies, two years of Physical Education, and work in handicrafts.

Figure 3.—Typical 4-year Program St. Andrews Presbyterian College, Laurinburg, N.C.

Physical Facilities

The initial step taken in the translation of needs to buildings was to secure an architect for the project. After interviewing some 38 architects from Boston to Florida, the building committee selected A. G. Odell, Jr., and Associates of Charlotte, N.C., to plan the campus and buildings. The selection was based largely upon the estimate by the committee that this firm was best equipped in design skills to interpret the demands and the symbolism of the college in architecture. Although Mr. Odell had undertaken college construction, his practice was diversified and marked by originality and creativity in design, together with a knack for getting buildings that worked well. The location of the firm in Charlotte, although not a major factor, was helpful in speeding the solution of the many problems that arose on the job. The architect drew a strong group of professional engineers and landscape designers about him.

The building committee whose chairman was a capable layman, Mr. Halbert Jones, then secured the services of Engelhardt, Engelhardt, and Leggett, educational consultants of New York City. The role of this organization was to develop in detail programs of requirements for each space to be included in the buildings.[4] The programing of spaces was done in close cooperation with the faculty, and the consultants' wide experience in college planning over the country was brought to bear upon problems. The consultants were involved as a part of the team in all aspects of the planning process. They did a good deal of the detailed work in coordinating and recording faculty thinking; in summarizing proposals for discussions; and, in general, releasing the administrative staff from some of the immense burden of getting a new college under way.

Site planning.—The architects developed a series of studies of the site that gradually evolved into the broad campus plan that is being followed. Participating in these studies were the architects and the landscape planner, Lewis Clarke, of Raleigh, N.C. The proposals were reviewed by faculty and staff representatives and the educational consultants.

A major proposal was made to convert the stream running through the property with its low-lying swampy area into a lake. Careful study showed that the supply of water was plentiful and uncontaminated. The lake would provide a splendid focal point for the campus and would concentrate a good deal of student walking traffic along a wide causeway that linked the dormitory and college union on one side with the library and academic buildings on the other. (See p. 141.)

At a strategic point on the causeway was to be located the chapel as a symbol of the Christian nature of the college. The causeway, too, was thought to be an advantage to the college in developing a sense of community. Although only 300 to 400 feet long, the causeway was to be the only central connection between the two sides of the campus. There would be an increased likelihood of seeing familiar faces and gaining a sense of belonging as the whole college found itself mingling on the causeway, passing and repassing the chapel.

Major access to the campus was to be gained from a State highway in the process of being widened to a four-lane divided highway. The utmost in cooperation was received from the highway department. A needed service road for the major highway was relocated into the campus proper and with a bridge, became a most useful link between both sides of the lake.

The actual entrance to the campus was set cooperatively with the highway department, utilizing at the same time an old road into the property that was lined with large trees. Incidentally, some of the campus was farmed while planning and construction was in progress, yielding income. Many acres of trees were planted for later use on the site and for reforestation of some of the land.

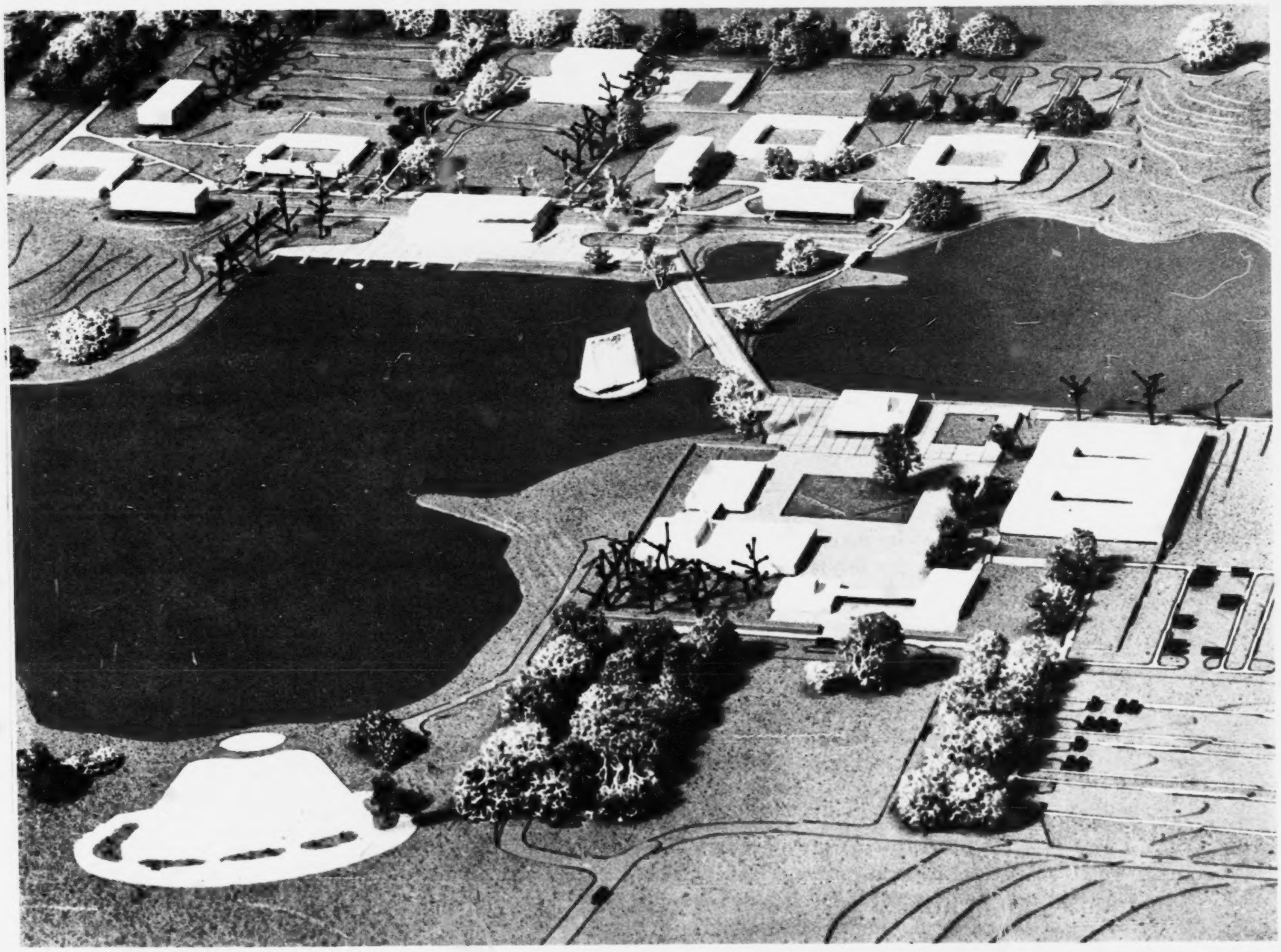
The cooperative nature of the college project between the town of Laurinburg and the board of trustees became increasingly apparent as time went on. Not only had Laurinburg freely contributed financially to the establishment of the college but the local authorities did all in their power to help the college get under way. Water was extended from the town system. A new sewer treatment plant was needed by the town and the college was connected into that utility. On the whole, everything possible was done locally to promote the building of the college.

The site plan was finally developed and much of the site-grading, development of the lake, roads, curb and gutter work, and the like were started under separate contracts before bids were accepted on construction of buildings.

Careful study had pointed to a central heating and cooling plant, together with distribution systems. Sewer, water, and electrical systems also were planned jointly. All of these mechanical systems were placed under contract and largely accomplished before construction started on new buildings. The college has engaged a landscape architect to carry on the grassing, planting of trees, and development of the site. The lake, the causeway, and the buildings, when trimmed by grass and trees and planting, should be a composite work of beauty.

---

[4] Engelhardt, Engelhardt, and Leggett. *Program of Requirements, Consolidated Presbyterian College.* New York, The Authors, 1958.



Mockup of Campus of St. Andrews Presbyterian College, Laurinburg, N.C., showing how the lake divides the campus. A causeway links the academic and library area to the residence halls and college union area, with the chapel located between.

Architectural style.—The selection of A. G. Odell as architect for the overall project had suggested that contemporary design would be sought. The building committee wished to be assured that a style of architecture that could be lived with over many years was developed for the campus. Perhaps the most effective visual aid device used was a circular perspective of the campus so drawn that when the viewer stood within a 10-foot diameter circle with a band of drawings at his eye level he was transported visually into the campus before it was constructed. This was no doubt of great value to the group of laymen who were required to exercise judgment in the field of architectural style.

The college was designed in a group of warm earth colors and white concrete. The walls were of a light brown brick or precast concrete panels with an exposed aggregate in yellow and brown. Where screens were to be used, again a tan was selected. The screens, a cast block to keep the sunlight off glass walls where it could be troublesome, were formed in an unobstrusive shape of a cross.

Contained within funds for the building project was an allocation for some ornamentation, including a series of cast units at the entrance that hold a long history of symbolism in the Presbyterian Church. A large mosaic mural at the entrance to the academic building reminds the college daily of the close relationship between art and education.

Flexibility.—The staff, consulting firm, and architects, in approaching the translation of the described curriculum into a plant that would support it, found themselves in an area where there was not a great deal of guidance available from existing institutions. The dependence, for such a considerable part of the curriculum, 36 hours, upon team teaching and the likelihood that procedures introduced now would be modified in the future suggested that the classroom and laboratory facilities would require maximum flexibility. Consequently, the academic building is one story in height with its floor slab elevated above grade. This allows for ready access to utilities for sciences and ease of changing services to any part of the building. For example, if TV circuits are to be enlarged, the coaxial cable can be run to any point in the building without requiring expensive conduits to be installed in advance of need.

Flexibility was a requirement in terms, also, of the ultimate size of the college. While it was expected that the original enrollment would be about 800, the preliminary plans of the college required a layout for an anticipated growth to 2,000 students, and all facilities have been sized to grow to this number. A total of 2,000 students has been set as a desirable maximum size. The original academic building was designed to accommodate the program for 1,000 students. The library and student center were also sized at 1,000. The possibility of extending beyond 2,000 students is safeguarded by the location of buildings so that there is room for expansion of key units such as the student center and the library, and a large site is available so that peripheral expansion of the college can continue almost indefinitely if needed.

The Academic Building.—The program of requirements for the academic building as developed by faculty and educational consultants called for an air-conditioned building that would include all the laboratory and classroom activities for 1,000 students. A building of 64,000 square feet was developed. Its major unit is a large classroom designed for use by 250 students at a time. It is a room with a flat floor designed for the utmost use of technical aids by the faculty in presenting information to students in large groups. The flat floor gives flexibility. It can be equipped with TV in order to give ready viewing of demonstrations, panel discussions, and the like when a large crowd is in the room. Rear view projectors and overhead projectors can be used, and there is a projection booth for films at the rear of the room. An adequate public address system, to which tape recorders can be connected, completes the electronic equipment.

Classrooms are provided in varying sizes. All of these have some windows but, as the entire building is air-conditioned, primary reliance is on mechanical ventilation and cooling.

Faculty offices are provided which are isolated from specific classrooms in order to secure maximum use of space. A comfortable faculty lounge is available and areas are provided for informal contact between students and faculty.

Science facilities are planned for two purposes: (1) for a general introductory program scheduled in the sophomore year and (2) for a major in one of the natural sciences, as well as preparation for teaching or graduate work.

The academic building contains a business education area, a foreign language laboratory, an art studio, homemaking spaces, and similar specialized areas. All of these spaces were developed by faculty and consultant jointly until the needs were expressed in enough detail to turn the material over to the architects for design purposes.

College union.—The student center is planned for the service of meals and it also takes care of many college activities. It houses the postoffice, the bookstore, college dining room, snackbar, lounges, and some meeting and games space. The kitchen and overall food service, planned by Flambert and Flambert, food service consultants of San Francisco, Calif., utilizes a "scramble" rather than a line for the cafeteria service. The dining areas can be subdivided. A faculty dining room with lounge space is provided. A smaller dining room seating 100 is provided for meetings and dinners.

Service is planned for the student center so that, upon demand, food can be moved from the central kitchen to any of the dormitories. Thus, it would be possible, when desired, for a dormitory group or some other social group to have food prepared in the central kitchen and served at any location on the campus. The two-story building is accessible from the main dormitory level at the top floor and from the main academic campus area at the lower level.

Library.—The library will occupy a pivotal position on the campus and will be located at the end of the causeway that links the dormitory and academic areas. The library is a three-story unit with service, processing areas, circulation desk, catalog, librarian's office, and reference space on the first floor, with substantial expansion planned. The upper floors will have open reader-book space. An open stack system is anticipated. The attempt has been made to avoid overly large reading areas. The one open reading space is planned for freshman reading when additional service from the library staff is available to help new students.

Throughout the library the emphasis is upon flexibility. Few partitions are fixed and then only because of plumbing. The book ranges will accommodate 150,000 books, and the floor space, 300 readers. Probably, in terms of the demand of the basic courses for reading by students, the library will be the first building to become overused and overcrowded.

Dormitories.—Dormitories have been provided for 600 students in first construction, with the expectation that in 1 or 2 years additional dormitory space for 200 more students will be required. Dormitories were planned for groups of 8, 10, or 12 students with a common lounge and common washroom facility, much in the manner of a fairly large apartment. In the one-story dormitory, the center quadrangle is a quiet area for rest and sunning. In the three-story dormitory, each upper floor lounge has an open sun porch as well. All dormitory rooms are air-conditioned. Each dormitory has a reception area, lounge, visitor's room, and an apartment for the adult head of the dormitory.

The dormitories were kept reasonably small, accommodating between 84 and 100 students to a building. The size of the dormitories, the provision of apartment units, and the possibility of food service in the main lounges suggests the effort that has been made to have the dormitory a simple, pleasant subcenter of social life on the campus.

Throughout, the realization that a great deal of the student's time is spent studying in a dormitory room has led to the development of the lounge for each group of four to six double bedrooms, where, hopefully, much of the converstation may take place. Care has been taken to make the rooms quiet and less subject to noise transmission. The air-conditioning, which obviates the necessity of opening windows, may also help in providing a quiet place for study.

Music conservatory.—A strong program in music, particularly church-related music, has prevailed for a long time at Flora Macdonald College. The new campus provides for a continuation and broadening of this program. The music conservatory has two large rehearsal and recital rooms, ample individual practice rooms, some classrooms for theory, and teaching studios. Careful attention has been given to a music library and places to play recordings.

Future Campus Development

Although the academic building, library, college union, music conservatory, and some dormitories are the first buildings to be provided, the campus plan (based on a student body of 2,000) contemplates additional buildings to include an auditorium, chapel, administration building, physical education space, and additions to existing space of other buildings.

Lessons Learned

It was recognized from the start that, in the process of merging existing institutions, there would be opposition from those with strong loyalties to the institutions involved. The important factor in a consolidation movement is that the controlling agencies be solidly behind the movement before it is undertaken. That is the essential strength needed to carry through the projected plans. In the case of St. Andrews Presbyterian College, the heads and appropriate administrative officers of the merging institutions were invited to participate in all major planning activities. Also, the appropriate faculty members were consulted as the architect and educational consulting firm developed plans for the campus and buildings. The board of the consolidated college is composed primarily of trustees of the merging institutions.

If anything is to be learned from our experience it is that once the decision has been made by a controlling agency, action should be taken immediately to carry out the plans. However, nothing should be undertaken unless substantial funds are in hand commensurate with the needs, and unless adequate financing is assured during the first years of operation when little in the way of supplementary help from sources like alumni can be expected. Further, it is imperative that the site selected have potential for adequate financial support from the start. In addition to sound financial planning, it is important that the best possible educational advice is sought from the beginning. Those who have helped start the building of St. Andrews have learned much in the process and have much to learn. But one thing is certain—the reward is great.

Chapter XII

IMPROVISATION AND "MAKE DO" can be rewarding. At any rate they are sometimes necessary. Making a virtue out of necessity is the theme in the case of Barrington College. This is a double-barreled case since the college first accommodated itself to an erstwhile hospital facility and later to the country estate of a wealthy industrialist.

Establishing Barrington College in Part in Facilities Not Planned for a Higher Educational Institution

By
Howard W. Ferrin
President, Barrington College, Barrington, R.I.

SOMEONE HAS SAID that three moves are worse than a bad fire. This, however, is not always true, for Barrington College has moved three times and each move has been far from a detrimental experience. Founded in Spencer, Mass., May 5, 1900, it moved to Dudley, Mass., in 1923; to Providence, R.I., in 1929; and in 1961 it will locate its facilities on the new 110-acre campus in Barrington, R.I., a delightful community 7 miles south of Providence.

Early History

This institution did not begin as a 4-year college. It had its inception as an independent, interdenominational religious school, dedicated preeminently to providing theoretical and practical instruction in the several church vocations. The curriculum was limited, but students from not only the immediate local area but from all of the New England States in particular attended the school because of its distinctive program. During the first 38 years of its existence it never reached an enrollment of more than 100 students, but under a new administration inaugurated in 1925 the school grew until, following World War II, it reached an enrollment of more than 500.

Dr. Walter Dill Scott, former President of Northwestern University, once made the comment that an institution passes through three stages: survival, expansion, and improvement. This has been the experience of Barrington College. It must be conceded that the college might have ceased to exist at almost any time between 1900 and 1940. In 1932, for example, at the bottom of the great depression, the student body was reduced to 33 students.

An account of the difficulties the school had in establishing itself in the improvised quarters at Dudley, Mass., would be of little significance. The move to Providence, R.I., in 1929, however, brought problems of adjustment which might well be of interest. The newly acquired property, formerly owned by the Providence Lying-In Hospital, was more than adequate to provide the facilities needed at that time to house all the activities of the almost extinct institution. It was composed of three good-sized buildings. The central one, a large private dwelling with spacious rooms, high ceilings, and other advantages, had been given to the hospital in Civil War days. Later the hospital had erected two wings which, joined to the hospital at the ends, were substantial annexes, one serving as a ward building, the other as a nurses' home. Although the property was located immediately to the rear of the beautiful Rhode Island State Capitol, the neighborhood had deteriorated noticeably. The property was hardly what a school would choose to own, but with its limited resources this small school had little choice. The move was necessary, one very important reason being the need of the students to find outside work to increase their income, for which there had been few opportunities at Dudley. Providence is the second largest metropolitan center in New England.

Improvisations on Campus No. 3

The major needs of the institution were met by the three buildings. In the central unit, offices and classrooms were established on the first floor, and the second and third floors housed women students. After judicious removal of partitions the ward building provided facilities for classrooms and library. In the same way provision was made for a small chapel and additional classrooms in other areas. Offices were located on the first floor of the former nurses' building, and the three upper floors served the dormitory needs of men. In the early years, the basement provided space for a dining room and kitchen, and after the construction of a new building in 1948, it housed the financial and mailing departments. One part of the chapel had formerly been the delivery room and was actually the very room in which one of our graduates was born.

During the thirties the tide seemed to turn, the school began to grow, and by 1940 the enrollment was about 150. As the student body increased, so did the number of faculty members. Every space had to be utilized. The growing college family called for constant adjustments which again and again taxed the patience of everyone. Yet the joy of the growth was the reward of amelioration, which made it all seem exceedingly worth while.

The war years were followed by an influx of students which was the precursor of the first period of the necessary major expansion of the small college. It was necessary to find additional housing facilities. Ninety percent of the students came from outside the State and in order to house them the college acquired several two- and three-family frame houses that adjoined the hospital property. Fortunately this was not difficult because, as we have already indicated, the market value of the property in the neighborhood was declining. Houses were purchased at reasonable figures, renovated, and made as comfortable as possible. The buildings were far from prepossessing, so we improved them to the best of our ability by painting them and doing some landscaping. However, no one who passed would have conjectured by the furthest stretch of his imagination, that these buildings were the dormitories of a college. The acquisition of this type of building continued over a period of about 20 years until some 25 houses had been acquired, located on about 3½ acres of land.

The following observation may be of encouragement to some administrative officers: if the esprit de corps of a school is high, if the students are busily engaged in the pursuit of knowledge and are participating in wholesome extracurricular activities, it is our opinion that they will not be as critical of substandard housing facilities as we sometimes fear. In our affluent society we are prone to think that unless we provide facilities that border on the luxurious, our students will turn from us and select some other institution. This may be true in some cases but in Providence, happily, our experience has been otherwise. In fact, after 1 year on our present new campus at Barrington, a former multimillionaire's estate, some students have actually been eager to go back and spend their junior and senior years on the Providence campus because they felt that the fellowship of the students still on that campus and the dynamic spirit generated there were contagious. Actually, students are more concerned about the educational program offered by the college and the close companionship with their fellow-students than about the physical properties of the institution. We do not of course argue that dormitories should be in any sense intentionally inferior or inadequate, lacking in what is conducive to wholesome living; but we do believe that if an institution must house its students in substandard buildings, this should not necessarily be construed as a serious handicap.

Expanding the Program

In 1947 a 4-year college program was established, and the first Bachelor of Arts degrees were granted in 1950. It became increasingly clear to the trustees that the buildings were not adequate for an expanding institution. Not only was it expensive to operate these buildings but the fire hazard was exceedingly high, as there were at least 20 separate heating units. The fire insurance premiums on the buildings alone constituted one of the major items of the operational budget; but even more serious than this was the ever-present fear that a fire might result in loss of life. Furthermore, the cost of the maintenance of such frame buildings was inordinately high.

In addition to the problem of economical operation, there was the challenge of an increased enrollment. With a student body of over 500 and the prediction of an even greater college enrollment as we enter the sixties, the trustees, as early as 1947, engaged a highly competent architectural firm in Providence to prepare the plans for new buildings that would replace the old. The senior partner of this firm had had wide experience in planning some of the outstanding buildings of Providence and of several academic institutions, including Cornell University. Our experience with this firm convinced us that a college will save money by engaging the best architects possible. Several thousands of dollars were spent on plans for new buildings scheduled to be erected on the Providence campus, but those plans were never carried out for the following reason: unexpected events developed, for which we were unprepared and which radically altered the plans of the trustees, leading them to decide that the college should be moved again. This decision did not grow out of any preliminary research, surveys, or professional counsel, but as a result of the following truly astonishing series of events: One day the academic dean of our college, Terrelle B. Crum, informed me that the country estate of the late Frederick S. Peck of Barrington, R.I., had been bequeathed to a Providence hospital. The hospital, he informed me, did not desire to keep the property and therefore planned to sell it. He asked me to urge the trustees to look into the matter, but I was not disposed to do so at the time. Subsequently, the estate was divided into several parts. One part included 110 acres of land on which were located the magnificent Peck residence and some 11 adjoining buildings. In 1947 these properties were purchased by a junior college. The main buildings were then thoroughly equipped for academic use and for 3 years, this college operated as a private institution. Unfortunately, however, in the summer of 1950 it went into bankruptcy.

Contemplating Campus No. 4

When the newspaper carried the bankruptcy story, some of the members of the administration were convinced that this excellent property should continue to be maintained as an educational institution. From that time on, the wheels began to turn swiftly. While it seemed quite beyond the ability of our college to purchase this property, the trustees felt impelled to make a bid on it. Therefore they authorized the administration to learn how much was owed to creditors by the former college. On the basis of this information, a bid of $250,000 was authorized by the trustees. While this seemed like a "mountain of money" to us—and so it was—actually it was a ridiculously low bid for so excellent a piece of property, since it has been estimated that to duplicate even the main building at today's prices would cost about $3 million.

The laws of Rhode Island require that if one bids on a property which has gone into receivership, 10 days must elapse after the first bid, during which time anyone else is privileged to make a bid. Furthermore, it is required that each bid, and the name of the party making the bid, be publicized in the newspaper. On October 15, 1950, the bid of our trustees was submitted to a judge of the Superior Court of Providence County, and a hearing was set for the morning of October 25th. The whole affair seemed to the administration quite unorthodox. Certainly the trustees who had only $1,000 in hand when they authorized their bid might well be judged as being presumptuous and foolhardy. On the other hand, some of these men were heads of corporations and some were owners of their own businesses or held high positions in substantial industrial firms. As businessmen they were convinced that the acquisition of this property would save the college a sizeable sum of money, since to provide similar space in new buildings would cost at least four times the amount of the bid.

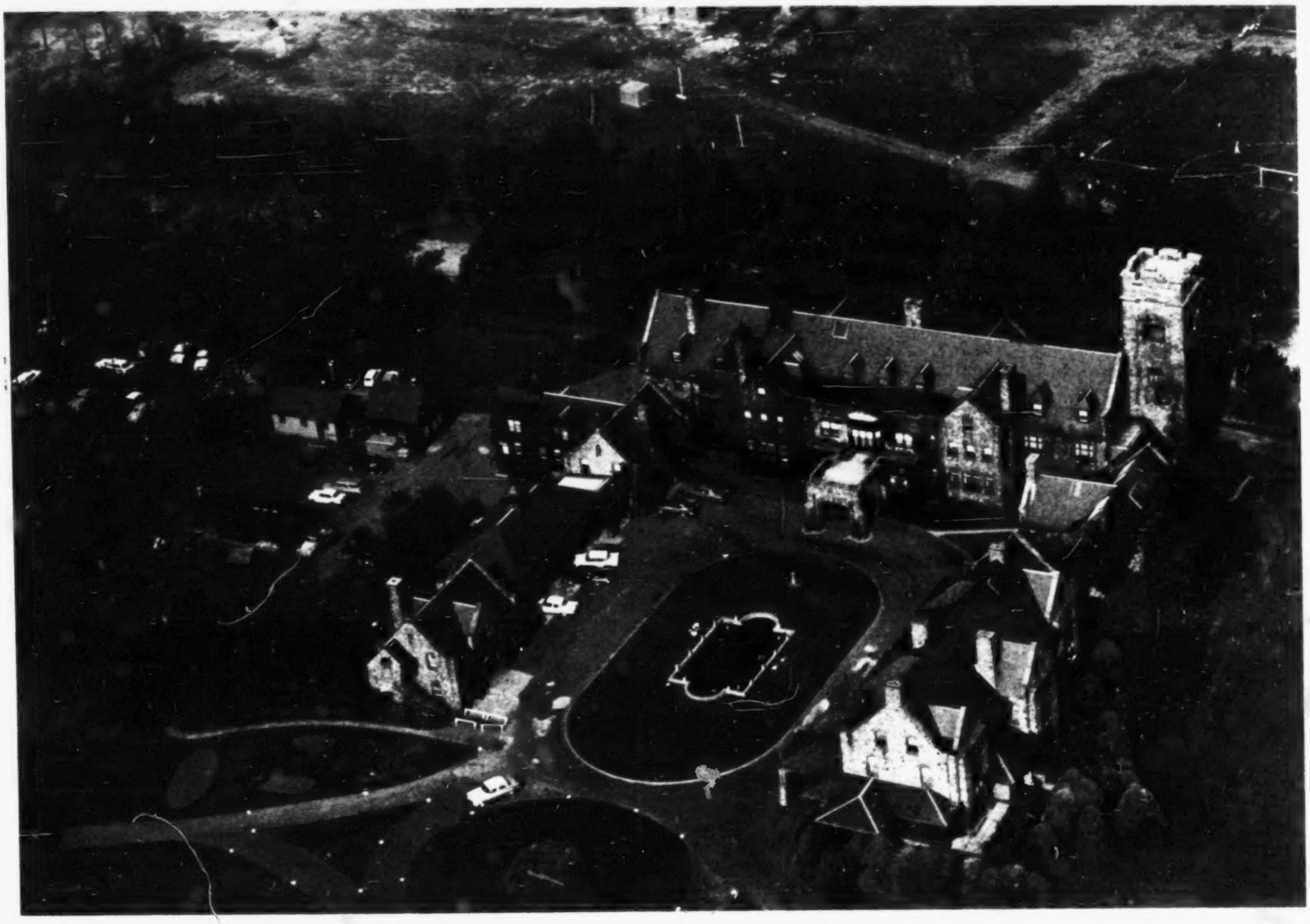
A Photo Finish in a Campus Sweepstakes

On the day before the court hearing, or on the ninth day, a higher bid of $300,000 was submitted by a competitor. This indeed complicated the whole situation and resulted in the cross-play of many forces, but when the full picture was presented to the judge the next morning, he gave instructions that both parties should bring in new sealed bids to the afternoon session, at which time he would award the right to buy to the one who submitted the higher bid. It was a tense moment when the bids were opened! It was a startling moment when the judge announced that our competitors had bid $331,000 and we had bid $331,001! So it was by the margin of a single dollar that we were awarded the right to purchase the property. The days that followed were momentous indeed. A bank approached us and offered to lend us $150,000, but even this generous arrangement meant that the trustees would have to raise $181,001 in 90 days in order to take up the option. Starting with only the $1,000 we then had, we published the story of the "Miracle Dollar" in a number of national magazines and told the story on the radio and in other ways publicized it, making an urgent appeal for help. The astonishing result was that from all parts of the world the money flowed in, some from the strangest sources, and on the 87th day the title papers were signed and the famous Peck Estate became the property of Barrington College. Thus it is my conviction that when a small college has the opportunity to acquire a more spacious campus which is judged as not only desirable but, in a sense, indispensable, the trustees might well strike out boldly and expect the unusual.

No "White Elephant"

The establishment of our college on the Barrington campus with the marvelous facilities not originally planned for a higher educational institution, may furnish other college administrators with some interesting and helpful suggestions. One would hardly expect that the residential properties of a private family would satisfy the physical and academic needs of a college. Indeed it is quite possible that an institution might acquire a millionaire's estate that would be most impressive but hardly practical. In this way not a few institutions have acquired a "white elephant"—but the Barrington property cannot be so characterized. For nearly 10 years now these buildings have demonstrated that they are readily adaptable to academic use. There is literally no space in these buildings that cannot be used advantageously. The spacious reception room gives dignity, beauty, and warmth when one enters the main hall. Several large lounges which flank the reception hall are being used for library purposes. This improvised library space is in addition to the magnificent private library with its marble floors, limestone walls, and beautifully paneled shelves in which were housed some 5,000 volumes of Mr. Peck's rare collection.

It has been estimated that the former junior college had installed some $40,000 worth of school equipment in the main buildings alone. This of course included some dormitory equipment placed in 28 spacious rooms with adjoining baths. The dormitory accommodations, however, were limited and provided facilities only for the sophomore class. This meant that the other three classes had to remain on the Providence campus some 8 miles away. The problem of intercommunication between the two campuses for a period of 8 years has been difficult and, at times, quite frustrating. Faculty members have had to commute between the campuses. The science courses have had to be offered in the second year only, because the physics, chemistry, and biological laboratories are located on the Barrington campus. In addition to the main buildings there are three other structures on the Barrington campus that our architects told us were so well built that they should be remodeled and put to use. One large building has already been converted into a music building which provides 7 teaching studios, 18 piano-practice rooms, 2 lecture halls, and a recital hall accommodating about 125. A second building has been converted into an athletic house, opposite the 10-acre athletic field that is yet to be developed. And there is still another building—the largest of the three, with a floor space of 20,000 square feet. The present plans are to utilize this building by making 15 classrooms, an assembly hall seating 700, 4 offices, 2 lounge rooms, and a dining room accommodating about 325.



The campus of Barrington College, Barrington, R.I., was once the country estate of the late Frederick S. Peck. The major buildings comprised the Peck residence and remain the showplace. They house the administration, the library, and academic rooms.

Expanding the Facilities

The physical development of the new Barrington campus has engaged the attention of the board of trustees ever since the property was acquired. As early as 1954 a Boston architectural firm had been engaged to prepare a plot-plan of the entire campus, looking to its development over a period of several decades. In this overall plan, the major buildings—the former Peck residence—would always be considered the center, or the "show place." (See above.) Such a center is, we believe, needed on every campus. Not only are these massive stone buildings of Tudor architecture most impressive when one sees them for the first time, but the landscaping about them is almost breathtaking. It has been estimated that to duplicate the landscaping at today's prices would cost about $50,000. To the west of these buildings there are about 75 acres of woodland.

The architects laid out this entire area in three major sections. On the north side of what constitutes a rectangle, a living area has been established. Here the dormitories will be erected. On the southeast section the academic buildings will be located; the southwest area has been reserved for a graduate school. In the center of the campus and at the focal point of these three areas will be located the library, the chapel, and the college center. Across the main highway, dividing the upper from the lower campus, there are about 20 acres of land on which are located the remodeled buildings to which reference has been made, and a 10-acre athletic field. It is estimated that one can walk from one end of the campus to the other in about 10 minutes. One of the regulations which have been made is that no automobiles shall be allowed on the lower campus. Students will either have to walk or ride bicycles to get to many of their classes. We believe this regulation will be conducive to the health of the students.

At this writing the *move to Barrington* is on! With great eagerness and not without a show of impatience, we have waited for the day when the entire faculty, staff, and student body might be located there.

The first new 162-student dormitory to be erected was completed in January of 1961. There is little one could write about the erection of a new dormitory that cannot be learned by consulting a good architect or by getting blueprints from other institutions, but there is a significant item to which I should like to refer in connection with the building of the new dormitory. The struggle to lift the mortgage of $150,000 from the new campus was not an easy one, but it was achieved in 1953 and the property was free of all encumbrances. Then followed some financially difficult years such as have affected most colleges and universities. It seemed as if the only possible way we could erect a dormitory was to apply for a Government loan. The trustees approved this procedure and the machinery was set in motion to accomplish it. The college was declared eligible, and an application for $700,000 was made. However, there developed a great uneasiness on the part of the trustees and the administration concerning this procedure. It seemed to us that it meant "biting off more than we could chew." The specifications and requirements of the building seemed to make the cost prohibitive. Then came the gloomy day in February of 1960 when the board met and it seemed as if we were unanimously agreed that we should not further process our application.

The Board Sets the Example

Then an exciting and happy thing happened! Before I disclose what it was and in order to encourage other administrators, let me quote from a most able fundraising consultant we had engaged. Among the first things he had said to me was: "President Ferrin, let me underscore this at the very outset. Unless your trustees themselves give substantially toward reaching the financial goal of your fund drive, you will not make a success of this effort." How true his words were will be seen in the following record.

As is the case in every board of trustees, there are dedicated men who find it impossible to make large gifts at all, or can do so only infrequently. Many of them have their money tied up in their businesses or in investments so they do not have substantial funds to give away. Then, too, there are trustees who serve the college in other ways than in making large financial gifts. Some of the noblest of the men who have been associated with me at the college—over a period of 35 years—have been those whose services to the college have been principally in other than monetary ways. But it is still true that if the trustees—collectively and individually—are not able to provide a good portion of the total amount to be raised in any fund drive, the effort will probably come short of success. The experience of Barrington College in its fund drive proved the truth of our consultant's observation.

At the board meeting that day when we faced the prospect of postponing indefinitely our building program, one of the trustees, who had recently sold his business and had some of his estate in liquid form, asked whether we could erect a building that would provide for an equal number of students, less expensively than in the conventional dormitory if we built it according to our own specifications, understanding, of course, that such specifications would have to meet the building code of Barrington. To make a long story short, this trustee announced that he was willing to make arrangements for a substantial gift to the college if it were found possible to build a dormitory less expensively. What makes the story even more fascinating is that after the trustee made this suggestion, the treasurer of the college pulled out of his brief case a rough set of plans strikingly like that which the trustee had described as the type of construction which might be used. There had been, I assure you, no previous collaboration of any kind, for I myself knew nothing of what either man had been thinking!

Immediately, negotiations were begun with a construction firm, which has resulted in the erection of an attractive colonial dormitory building at about one-half the cost of the building formerly projected. This experience leads me to suggest that it might be well for administrators to go slowly in negotiating loans with either the Government or banks lest they fail to reap from the generosity of donors who sometimes do not come forward with substantial gifts until the urgency of a need is conscientiously faced.

Other Problems

Another item which may be of special interest is our experience in connection with the installation of a sewerage system. The town of Barrington is one of the most delightful and desirable communities in Rhode Island in which to live. Until a few years ago the population numbered only about 6,000. In the past years it has grown to over 14,000, but no sewerage system had been installed. Such an installation would be most costly and the town fathers have not felt justified in putting in such a system. The cesspool system which Mr. Peck had originally located on his property, while quite adequate for family usage, was hardly sufficient for an institution of nearly 600 individuals. Therefore it would be necessary for the trustees to install a private system for college use only.

The southwest corner of the college property is in the town of East Providence, outside of Barrington limits. The sewerage line of that city comes within a few yards of this corner. Our engineers suggested that we approach the officials of East Providence and inquire if they would consent to let us tie in our sewerage system with theirs, thus relieving us of the necessity of installing and operating a costly disposal plant. The answer of the officials was an affirmative one, with the understanding that we would pay so much per million gallons which would be meter-charged to us. This plan was carried out with the result that there has been installed a sewerage system which will be, as far as we know, adequate for the foreseeable future, even though many new buildings should be added to the present ones. Administrators should investigate the problem of the utilities and facilities of any given community—especially of a rural community—before the acquisition of any property for expansion. We can hope that other institutions confronted with a similar problem may find as happy a solution as we did.

One problem still with us is the common community problem of how to overcome the high water table. This problem can be a very real one. I recall visiting a certain college campus and attending a football game where an obnoxious odor continually filled the air; this, to say the least, left an unhappy memory with me. Everything should be done by college officials to eliminate these objectionable features which result in depreciation on the campus. We are trying to handle our problem both by grading and by the channeling of surface water to outlets which have been established by the town.

Another problem, concerning zoning requirements, arose on the occasion of a request of the college for a variance from a zoning restriction. One of the Barrington zoning restrictions is that no public buildings shall be located within 100 feet of an adjoining property line. The building we desired to remodel was about 75 feet from the nearest property line. In the eyes of the neighbors this would mean a violation of the zoning restriction. The zoning committee felt justified in granting the college a variance in this instance, however, because (1) similar variances had been granted to churches and other public institutions, thus setting a precedent; (2) they were convinced that the college would install a sewerage system such as would not raise the water table in the area in which the neighbors lived; furthermore, they recognized that the high water table was their problem and not that of the college; and (3) they expressed their delight that a college was to be established in their town, believing it would enrich the educational, cultural, and spiritual life of the community. The zoning restriction issue came up again when it was proposed to erect the new dormitory. Once more we had to apply for a variance. The repetition of this procedure was recognized by the town officials as constituting a frustrating experience to the college administration. They felt that a college should not be hampered in the development of its campus and therefore they are currently exploring the possibility of rezoning the entire campus to give it a new classification. This would make it possible to erect any and all buildings without the necessity of securing a variance each time the college desired it.

On Being a Good Neighbor

In every way the town council has sought to assist the college in developing the new site. This leads me to make another observation which may prove helpful to fellow-administrators: It is well to cultivate the members of your town council, or the civic leaders, on every possible occasion. This should not be done merely to curry their favor nor in a manner that is in any way condescending. They are adversely sensitive to this kind of an approach. Furthermore, this cultivation should not be withheld until just a few days before the asking of a favor. All officials like to be respected, to have their authority recognized, and their favor sought. An honorable approach to fairminded men generally brings happy results. We have found it so.

On Accreditation

There is no question that an inadequate and inefficient physical plant militates against the overall interests of a college. Ever since Barrington College had instituted its 4-year program it had put forth every effort to improve the quality of education offered its students. The first goal was regional accreditation by the New England Association of Colleges and Secondary Schools. In 1958 application was made for membership in this association, but not without doubts of being accepted. We were not accepted. One of the reasons was, we felt sure, the evident inadequacy and inefficient and unprepossessing appearance of the academic buildings on the Providence campus. We applied again in 1960, after having worked diligently to correct certain weaknesses that had been pointed out by the Examining Committee in their 1958 report. On December 2, 1960, Barrington College received its regional accreditation. A letter from Dr. Frederick C. Copeland, Chairman of the Standing Committee on Institutions of Higher Learning of the New England Association of Colleges and Secondary Schools, states: "Our committee was much impressed with all they learned about the rapid progress and the development of the Barrington campus in the past 2 years. We were particularly impressed with your new physical plant and hope that the transferral of your total operation from the downtown campus will be completed successfully by the end of this semester." Thus we see that a good physical plant is considered essential to the attainment of a good academic program.

Holding on to Growing Space

Earlier I referred to the fact that our dean, Dr. Terrelle B. Crum, first directed my attention to the estate which later became our new campus, emphasizing the point that we needed more land. At that time I had quite convinced myself that we could expand upward as some institutions have found it desirable to do. With patience the dean pointed to the fact that according to good authorities even the smallest college needs at least 100 acres as it plans for the future. And then he added: "Remember, President Ferrin, Oxford is about 900 years old!" That did it! In my astonishment, I replied: "What are you trying to tell me, Dean? that we are building something here which may be around a thousand years from now?" From that time on, with all diligence we pursued our plans to acquire more land.

While speaking of land, another bit of counsel may be in order. As I have indicated, in about 1952, Barrington College underwent a financial slump. It does disturb an administration and a board of trustees to go into the red 3 years in succession. When this happened, the chairman of our board of trustees became alarmed. One day he said to me: "Don't you think we had better sell some of this land and pay our bills?" Somewhat facetiously, but really being in earnest, I replied: "You will do it over my dead body!" He enlisted several others to speak on this point at the next board meeting some 2 months thence. When they presented their case, other trustees seemed to be influenced by the presentation. It seemed as if my battle were lost. Finally, the chairman asked what my personal convictions were with respect to this issue. My reply was that I would not give my own personal opinion but would like to give the opinions of five college and university presidents expressed in five letters which I proceeded to read. Three presidents said that their colleges were buying back land which they had previously held and that they were paying a terrifically high price for it. Their counsel was not to sell a square foot of land! I grant you it is harder on the administration to maintain such a policy when the red figures appear, but every administrator must remember that he is but one in a line of administrators and that he must not betray his successors. My considered judgment is that, all things being equal, if it is possible, a college should acquire more land rather than surrender any. Keep your sights high!

On Making the Most of What You Have

Another observation is a simple one but it does more to tranquilize an administrator than almost anything else: Use what you have, and make the most of it. It is surprising what can be done with a bit of ingenuity. Sometimes it is good to call in your associates and ask them to tell you how you might better utilize the space which you now occupy. You may find that you have some physical facilities which can be used by agencies and organizations in the community, thereby bettering the "town and gown" relationship. The latest example of this at Barrington College is the gratuitous use of our recital hall which has just been completed in the remodeled music building. The cultural level of the town of Barrington is high, as is evidenced by the fact that in this community of 14,000 some 50 musicians have volunteered to participate in a community symphony orchestra. We are pleased to provide these facilities. This last suggestion might be couched in Scriptural language, even as one of the prophets put a question to the people of Israel: "For who has despised the day of small things?"

After having "put up" with inadequate facilities on three school campuses at Dudley, Providence, and Barrington, I am convinced that there is no facility which cannot be wisely adapted to meet some need in a growing institution. Obviously every administrator would like to have a campus of at least 5,000 acres, with every building new and every piece of equipment of the latest style, but institutions, like individuals, grow, and it generally takes an individual who starts with little at least 50 years to accumulate an estate. It is the same with an institution. Irving Cobb once said: "The way to make some money is to keep anything for 150 years." And I would say that the way to build an institution is to keep what you have, get more, and build as if you were building for a thousand years.

The question has been raised as to whether Barrington College was established after a survey to ascertain whether such an institution was needed in this community. The answer to this is "no." The school was begun very much as our senior sister institution, Brown University in Providence, was begun, namely, in the home of a minister who invited several young men to pursue courses of study under his private instruction. Barrington College developed through the years into what is today—a specialized institution providing liberal arts studies, with special emphasis on the humanities as well as on Biblical and vocational studies, particularly those which prepare young people for church vocations, public school teaching, and social work. The curriculum, which has been expanded in recent years, now offers 12 majors, all of which are considered basic in the program of general education consistent with the principal objectives of the college. It is obvious that the appeal which Barrington College makes to young people is not a universal one, but it is felt that its distinctive contribution in seeking to provide leadership in the fields of general and Christian education—as well as in the professional and business fields—is such as to meet a real need in today's world.

Chapter XIII

THIS CHAPTER is not an institutional case in the sense in which the other institutions in this Casebook were studied. It is the statement of a college architect concerning the logical order of procedural steps in the planning of new construction and the interrelationships and functions of the officers and agencies involved in the planning process. It is a paraphrase of a brochure prepared by Architect James M. Hunter at the request of the board of control of Colorado State University. The chapter should be valuable to college and university administrators who have campus planning responsibility, in understanding the mechanics of the process and some of the underlying principles.

Organizational Procedures

By

JAMES M. HUNTER
Architect, Colorado State University

THE PLANNING AND CONSTRUCTION of a building for an institution of higher education involves a great many groups and individuals, all having differing degrees of responsibility for the final result. This summary is intended to explain and outline the procedures followed in Colorado State University's building program from the time a statement of need for additional plant is made until the time when the actual finished building is ready for occupancy.

Organizational Chart

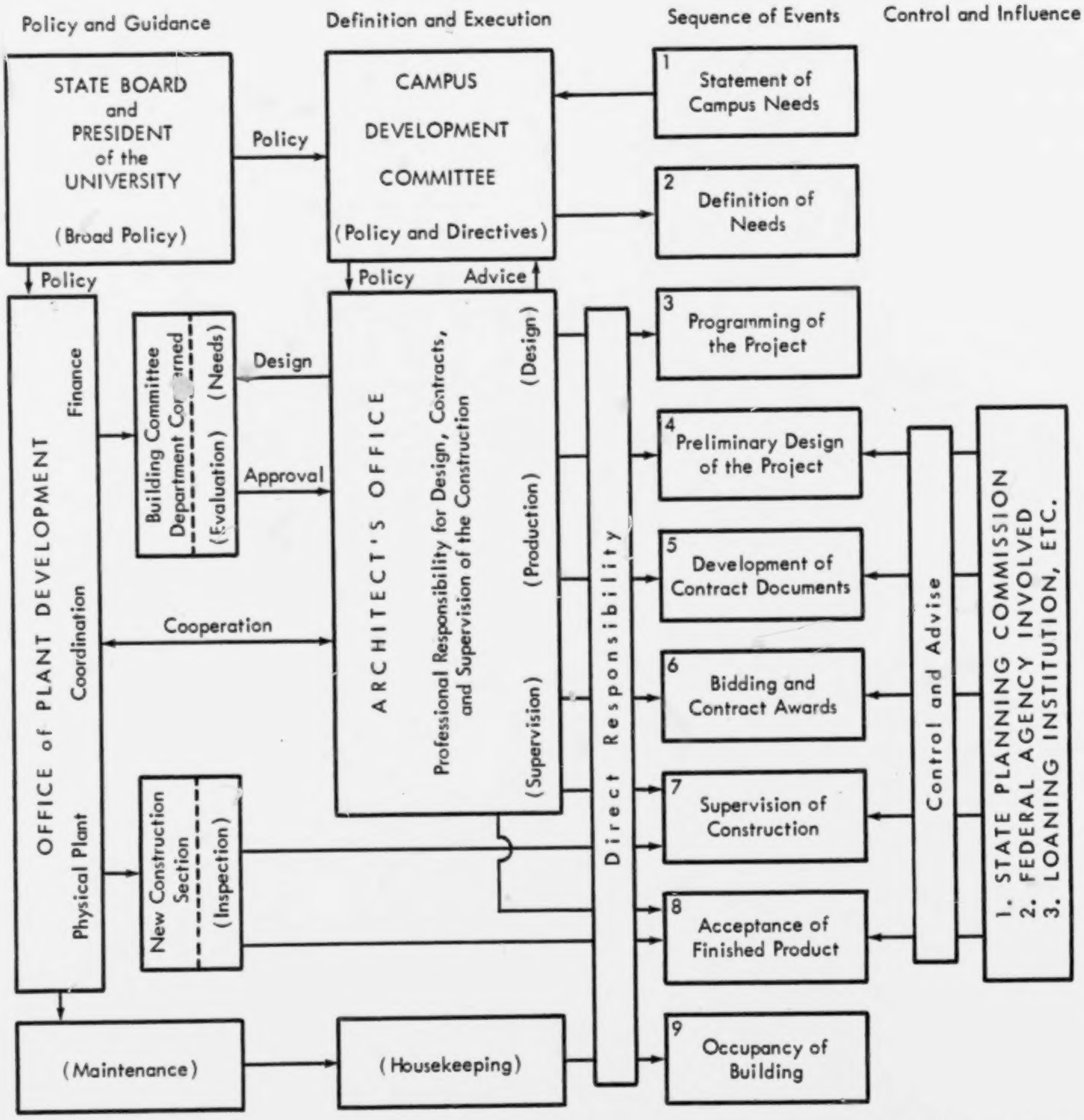
The accompanying chart (see fig. 4) shows the sequence of events in the entire process; the influences, the responsibilities and the procedures are indicated by following the arrows. It should be recognized that such a graphic presentation is always an over-simplification and that in the actual developmental process, suggestions, referrals, complaints, and criticisms may be interposed to the benefit of the project.

Statement of campus needs.—At Colorado State University all statements of need for additional physical plant, whether it be for academic facility, recreational facility, landscaping, streets and traffic, housing, feeding, or administration, are lodged with the Campus Development Committee. This committee operates under the broad policies created by the State Board of Agriculture and the President of the University.

The Campus Development Committee is appointed by the President from staff members whose responsibilities place them in positions of advantage for the exercise of judgment in evaluating requests, and who have general knowledge of the growth pattern of the total University development.

The following individuals, with the President as Chairman, comprise the current Committee:

A BUILDING PROJECT: WHAT HAPPENS and HOW IT HAPPENS


Policy and Guidance
Definition and Execution
Sequence of Events
Control and Influence
STATE BOARD and PRESIDENT of the UNIVERSITY (Broad Policy)
Policy
CAMPUS DEVELOPMENT COMMITTEE (Policy and Directives)
1 Statement of Campus Needs
2 Definition of Needs
Policy
Policy
Advice
OFFICE of PLANT DEVELOPMENT
Finance
Coordination
Physical Plant
Building Committee Department Concerned
(Evaluation) (Needs)
Design
Approval
ARCHITECT'S OFFICE
Professional Responsibility for Design, Contracts, and Supervision of the Construction
(Design)
(Production)
(Supervision)
Cooperation
Direct Responsibility
3 Programming of the Project
4 Preliminary Design of the Project
5 Development of Contract Documents
6 Bidding and Contract Awards
7 Supervision of Construction
8 Acceptance of Finished Product
9 Occupancy of Building
Control and Advise
1. STATE PLANNING COMMISSION
2. FEDERAL AGENCY INVOLVED
3. LOANING INSTITUTION, ETC.
New Construction Section
(Inspection)
(Maintenance)
(Housekeeping)

James M. Hunter and Associates

Figure 4.—Flow chart—Relation of the Architect to each step in the planning and development of a campus building project.

the Vice President, Dean of the Faculties, Director of Experiment Station, Dean of Agriculture, Head of Department of Horticulture, Business Manager, Coordinator of Plant Development, Plant Engineer, Secretary to the Faculty, and the President of the State Board of Agriculture. The architect is considered an ex-officio member without a vote and is charged with the responsibility of advising the committee in regard to buildings, overall planning matters, and other development activities.

The Campus Development Committee receives from various department heads and administrators of campus activities requests in regard to their needs, initiates projects from its own knowledge of campus needs, and advises and approves, as appropriate, during the entire process.

Definition of need.—After a statement of need has been received, it is thoroughly discussed, debated, and evaluated by the Campus Development Committee. The Committee relies heavily upon the advice of the Architect, the counsel of the Business Manager in regard to finances, the evaluations of the Plant Engineer in regard to physical plant problems, and the judgment of the Coordinator of Plant Development in regard to the total growth pattern. The statement of need, if accepted, is then ready to be set up as a project. At this stage, a frame of reference is set up and, in general terms, the type and kind of building or facility is broadly outlined and its budget established. The project is then ready for further study leading toward ultimate approval. At this point the project is merely defined. In broad and general terms, it simply represents agreement as to its general need and feasibility. It still has to be programed and designed.

Programing of projects.—The project is then placed in the hands of the Architect and the Coordinator of Plant Development, who then meet with a building committee appointed by the President from the academic department or campus function involved. Three people form the "cadre" of all such committees. They are placed on the committees to insure that the standards of quality, uniformity of maintenance, compliance with costs, and general acceptability are adhered to. The three "cadre" members are the Coordinator of Plant Development, the Business Manager, and the Plant Engineer.

In addition to these three people a varying number of committee members are appointed from the field of activity which the building is to serve. The number may vary from 2 or 3 to 8 or 10, depending upon the size and complexity of the project. They are carefully selected because of their knowledge of the operation which the building is to house and the objectives and requirements of the function it is to serve. The work of programing a project is quite involved and requires a great degree of insight, investigation, judgment, and diplomacy.

One of the most difficult phases is that of putting the project "through the wringer." By this is meant the process of determining positively the true needs to insure that the requested facility does not duplicate something otherwise provided for: to insure that, if built, it will show a high level of efficient use: to insure that it will not be "gold plated," that those requesting it have not asked for more than they can reasonably use, and that what they ask for is not excessive in cost as compared with minimum requirements.

During this procedure, the Architect and the three permanent members of the Building Committee have complete access to the President and frequently consult with him to insure that the project meets broad University policies so as to resolve any matters at issue.

When the project has been completely programed in terms of type of facility, space requirements, kinds of equipment, and arrangement of space in a diagrammatic way, the project is ready to go into the design stage.

Preliminary design of projects.—This process is a function of the Architect. Floor plans and space arrangement diagrams are drawn for each phase of the many requirements. Overall schematic sketches are made of alternate possible arrangements, types of structure, circulatory traffic pattern, access, and other details. These alternate choices are studied as individual problems and as segments of one large problem. During this process there is constant rechecking and resubmission of ideas to the Building Committee by the Architect for approval or rejection to be sure that the design adopted will incorporate the Committee's thinking in terms of ideas and evaluations and in terms of its knowledge of the functions the building is to house.

Finally, preliminary drawings, showing the entire building or complex in enough detail to insure complete understanding of all parties concerned, together with scale drawings of the elevations, and perspective drawings showing how the building will look in its location, are submitted to the Building Committee, the Campus Development Committee, the State Planning Commission, and whatever loaning agency may be involved. When these preliminary drawings are finally approved by all parties concerned, the project is ready for the preparation of contract documents.

Development of contract documents. — This again is a function of the Architect in the development of the working drawings and specifications of the building itself, and a function in which his staff consultants will participate in the design and development of the specifications and drawings for the heating, plumbing, ventilating, electrical, and other mechanical systems within the building. There will be site investigations for which soil consultants are employed to determine subsurface and water problems. Still other consultants may be required to solve some peculiarity or involvement of the complex project.

The working drawings are then evaluated and approved by the Building Committee. During this stage, the Plant Engineer gives particular attention to the uniformity and reasonableness of the maintenance which the building will require in use; the Coordinator of Plant Development makes sure that the overall design meets the requirements of the University function which is to occupy it; and the Business Manager determines whether the estimates provided by the Architect are in line with the budget.

Here, also, members of the Building Committee check for adequacy with eference to special needs. Final working drawings and specifications are submitted to the State Planning Commission and to the respective Federal or other loaning agency, should one be involved.

The contract documents defining the respective contractual obligations of the contractor and the University are then formulated.

The State Planning Commission provides standard contract forms from which it will permit no deviation. These forms must sometimes be supplemented by provision for additional requirements peculiar to the University's operation. If there is a Federal agency or other loaning institution involved, certain contract requirements are necessary to insure that requirements are met so that mortgage money or bonded indebtedness will not be jeopardized in any way. Further, a reasonable construction time *must* be set up in the contract for completion of the project and the terms under which "substantial completeness" can be established so that occupancy can take place. Provision must be made that such terms cannot be shortened except with the consent of the contractor. The method of accepting the project as substantially complete "with exceptions" must be done by defining the deficiencies in construction which are to be completed after occupancy. The year's guarantee against faulty workmanship or materials is another matter. Wherever there are such areas of possible doubtful liability due to divided responsibility, there are many possible legal involvements. Clarity and mutuality of understanding in regard to "substantial completeness," "occupancy," and "guarantees for materials and workmanship" are of paramount significance.

Substantial completion can only be required of the contractor at the time stated in the contract, regardless of how badly the building is needed and regardless of whether or not occupancy is feasible in a partially completed state. The time factor of the contract is a legal provision which cannot be breached. Substantial completion, with its list of exceptions or deficiencies, constitutes legal acceptance of the project except for the guarantee against poor materials and workmanship.

If the contractor is hurried and the project is accepted prior to its completion date, a risk exists of missing some deficiencies in the construction or of failing to list them in the checklist of exceptions, thus clouding the legal rights of the owner for restitution. It may sometimes be necessary to do so, however, as a *calculated risk* in order to gain occupancy, because failure of occupancy may result in a greater loss to the University.

The *1-year guarantee* of materials and workmanship should not be confused with maintenance expense. The general contractor is not expected nor required to provide for maintenance. Even if he should be called back during the 1-year period to make repairs and adjustments, such operations have nothing to do with normal maintenance programs.

Bidding and contract awards—A State institution is usually required to resort to competitive bidding in capital expenditures. This does not necessarily insure the institution the best possible value for the money expended. Poor contractors as well as good contractors are permitted to bid. The expedient of requiring a "Payment and Performance Bond" does not guarantee quality. It only insures the contractor's financial ability to handle the job and that the bonding company will pay to complete his work should he fail.

In the expenditure of State funds, apprehension may be created on the part of all who are zealous for a high level of quality when a State requirement specifies preference to in-State products and provides that substitutions must be permitted. The interests of the institution as the "owner" should be strongly defended by contract reservations as to who shall say what is an "acceptable equal" in instances of substitution. Usually such statute provisions are intended to prevent unjustified favoritism, but they as often operate to make difficult the maintenance of quality standards. Too often the burden of proof is unjustly shifted to the institution.

Bids will be invited by advertising and qualified bidders will obtain sets of specifications and drawings. At or before the specified time sealed bids will be submitted. Bids are publicly opened in accordance with prescribed formality, with bidders present, and with the representative of the owner reading aloud the amount of each bid. It is normal to have alternate provisions so as to cover various contingencies that may be necessary in order to bring the project within the available funds. Each such alternate will be separately bid, either as an extra, or as a deduction from the principal project bid.

Once a bid is accepted, the contract documents are executed (signed and sealed) and filed with the State. But the project may not be commenced until the contracts have been checked by the Attorney General and approval is given by the State.

Supervision of construction—Supervision of the work by the Architect should be clearly distinguished from the *superintendence* of the work on the part of the contractor and from the *inspection* of the work on the part of the institution and the State Planning Commission.

In the *superintendence* of the work, the contractor's superintendent "runs the job" from an operational point of view. His is the problem of the purchaasing of materials, the logistics and material flow to the job, the organization of the labor force, the scheduling and directing of that labor force under its respective foremanships, and the actual control of the construction operations. This is as it should be. The contractor is the business enterpriser and he must have a free hand in the management of those factors which can cause him to make a profit or loss on the project. This is what he engaged to do in his bid and what the contract gives him the right to do.

The *supervision* of the contract by the Architect is on behalf of the owners to insure compliance with the contract terms in materials, methods, skills, and results, thus controlling the quantity and quality of the job. The interests of the University are the interests of the Architect and his supervisor on the job. There is, in effect, a contract between the Architect and the University which states and defines the number of supervision trips the Architect shall make on the project during the course of its construction. There is no inference that the Architect guarantees the contractor's work or that the Architect's representatives be on the project all of the time during construction.

It will probably be the policy of the Architect to have the number of representatives on the project proportional to its size: intermittently, if very small, and continuously, if very large, but always in adequate numbers to be in constant touch with all phases of the operation. During the entire period of construction, the Architect's supervisor on the project causes a great many different kinds of tests to be made for different kinds of operations—some tests are made on the job, others in testing laboratories. The most common are tests of concrete mixes. Any unusual phenomena are also tested, such as additional soil tests if suspicious conditions are encountered while excavating. The results of these tests are carefully kept in the job account file.

Periodic inspection reports on the part of the Architect's supervisor are kept in a running journal log and are typed in the form of reports and placed in the job account file.

All "change orders" follow the same procedures as do "requests for payments" and "authorizations for payments," which are processed by the Architect's office after a thorough checking of the work accomplished to determine the amount of money currently due the contractor.

These records are supplemented by a series of progress photographs taken at intervals during construction and are dated as added precautions against involvement in a law-suit or in case the Architect should be called upon to prove what was being done at a particular time.

Inspection of the job by the University is done by representatives of the Coordinator of Plant Development. These inspectors work in close cooperation with the Architect's supervisor, reporting faulty work, poor materials, or other deficiencies to him. Periodic inspections are also made by representatives of the State Planning Commission and by representatives of any loaning agency involved in the financing.

The superintendents, supervisors, and inspectors should be people of broad and general knowledge of the building industry, experienced with building methods, materials, and construction problems. They should exercise constant vigilance. Even with all due competence of superintendence, supervision, and inspection, the quality of the building will depend upon the skill of the workmen and the conditions under which they perform their several functions. Not only the Architect but even the contractor himself find these difficult to control.

A good contractor will through the years develop a cadre of skilled craftsmen and will retain them on a permanent basis, but he is dependent upon the local labor market for the bulk of his labor force. This labor force is usually provided by the local labor unions which supply men on the basis of seniority and availability. There is an implied assumption that all are of equal skill. Many are adequately skilled, but some are not. Under the subcontract system, this supply of skills is further diluted and control tends to be lost by the general contractor to the subcontractor to whom the worker owes his primary loyalty. This is not intended as a blanket indictment of labor. The quality of the buildings we are getting is evidence that generally there are many craftsmen who take a sincere pride in their skill and are devoted to their work.

All of these craftsmen, however, are human and are subject to human limitations. Perfection is the ultimate we can expect from them, not the standard to be demanded. But certainly we should expect and demand "good to excellent" performance rather than perfection.

Acceptance of the finished product.—When the project is finally accepted as being substantially complete, it is ready for occupancy. By such substantial completion, it may be accepted actually or "with exceptions"—that is, a list of items agreed to by all parties concerned as being deficiencies in the work which are to be completed, corrected, put right, or supplied by the contractor after occupancy. Sometimes these deficiencies are great enough to warrant the withholding of funds against their accomplishment. Sometimes they are of a minor nature and are properly placed into the 1-year guarantee contractual classes.

The building must be accepted one way or the other before it can be occupied. Ideally, it would not be accepted until it was complete and right. Practically, because it is needed badly, it will usually be accepted with exceptions.

Occupancy of the building.—Occupancy of the building on the part of the University and the completion of the deficiencies take the building out of the hands of the Architect and the contractor except for the 1-year guarantee in the matter of faulty workmanship or materials and in the supervision of the deficiencies to be completed. It places the building under the maintenance and housekeeping program of the University. The contractor cannot be expected to do maintenance repair or housekeeping tasks.

Sometimes the deficiencies in the building and/or items properly coming under the 1-year guarantee can be discovered only during the normal functioning of the building and its equipment. These are reported to the Architect through the Office of Plant Development to be corrected if they occur during the 1-year period. If more than 1 year has passed before they are discovered, the University normally has no recourse but to consider them among the usual maintenance items.

The Architect makes several inspections of the building during the first year of occupancy in order to pick up faults in materials and workmanship. Sometimes these deficiencies are deliberately permitted to ride until near the end of the

1-year period with good reason. For example, the warping of doors, which is covered by guarantee, sometimes requires a full cycle of the seasons to be brought to light.

Summary.—From the foregoing it becomes apparent that the progression from an expression of need to an occupied building is complex and involves many people whose ideas, responsibilities, and actions are woven into the fabric of the finished product. Construction is an exciting and interesting process because it is creative and productive, and it draws curiosity like a magnet. A new construction project is always "news." Properly handled, it has good public relations value for the University. An informed understanding will enhance the people's interest.

U.S. GOVERNMENT PRINTING OFFICE : 1962 O - 630581

UNITED STATES
GOVERNMENT PRINTING OFFICE
DIVISION OF PUBLIC DOCUMENTS
WASHINGTON 25, D.C.

OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE, $300
(GPO)

If you do not desire to continue to receive Office of Education publications, please CHECK HERE ☐; tear off this label and return it to the above address. Your name will then be removed promptly from the appropriate mailing list.